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**APUBEF**

The Association of Pennsylvania University  
Business and Economic Faculties

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- (3) Encouraging perfect freedom of economic and business discussion.
- (4) And finally, fostering professional development of faculties, by encouraging them to engage in research and submitting papers for presentation to the annual meetings of the Association. Selected refereed papers are published in the *Pennsylvania Journal of Business and Economics* from this conference, but other articles are obtained from membership in general thus establishing a broad-based forum to present scholarly research and views on a variety of business and economic topics.

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We think the journal would be a natural instrument for Pennsylvania topics, pedagogical developments, or conceptual papers that appear to have no other outlets.

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1. Mathematical expressions and notations should be used judiciously and all symbols should be identified.
2. Tables should be arranged sequentially in the order in which the tables are first mentioned in the text and placed at the end of the manuscript. Type the word Table and its arabic numeral flush left at the top of the table, double space, then type the table title flush left above the table. The explanatory notes to a table such as probability tables, explanations of acronyms, etc. should appear below the table. Use the same font as used in the text and the tab function to construct the tables to the degree possible.
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4. Footnotes and end notes are permitted, but not encouraged. In most cases, the material they contain can be incorporated in the text. If footnotes are used, use the automatic footnote function (control F7) and specify a Times Roman 10 point font for their text. End notes should be in the same font as the text and placed after the references.
5. An American Psychological Association format is used for the references.

ESFJ? ESTJ?  
THE DOMINANT MYERS-BRIGGS PERSONALITY TYPES  
IN MARKETING EDUCATION: ARE YOU ONE OF THEM?

William McPherson  
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ABSTRACT

*A review of personality type research studies in marketing has discovered some interesting and valuable information for the field of marketing education. There appears to be two dominant personality types that are found in marketing education. This research paper will first provide an overview of the MBTI. Followed by a discussion of the MBTI and general teacher personality studies. Thirdly, a summary of the studies of personality types of business and marketing educators will be presented. Then, a discussion of the most common two MBTI personality types found among marketing educators, and finally, a summary and recommendations for marketing educators.*

OVERVIEW

Within recent years numerous studies using Jung's type theory and the Myers-Briggs Type Indicator (MBTI) have been conducted with teachers within various educational settings (Bowman, 1990; Ligon, 1985; Luh, 1990; Miner, 1987; and Thompson, 1984). Recently, many marketing educators have used the MBTI to determine personality types among their populations (Elias & Elias, 1990; and Plessman, 1985). Research with the MBTI shows that most occupations have characteristic type patterns. Teachers on different levels and different subjects tend to exhibit similar type preferences (Hammer, 1987). A review of personality type research studies in marketing has discovered some interesting and valuable information for the field of marketing education.

THE MYERS-BRIGGS TYPE INDICATOR (MBTI)

The MBTI is an appropriate tool to measure marketing educators personality types (Plessman, 1985; McPherson, 1994; and Waner & Echternacht, 1993). Myers and Briggs' purpose for the MBTI was not to measure people, but to sort them into groups to which, in theory, they already belonged (Hammer, 1987, p. 76). Inasmuch as Jung theorized that people's preferences are a choice between opposites, or dichotomies, and because the MBTI is based on Jung's theories, all questions in the MBTI require a forced choice between poles of the same dimensions, Extraversion (E) or Introversion (I), Sensing (S) or Intuition (N), Thinking (T) or Feeling (F), and Judgment (J) or Perception (P). The MBTI which is a psychometric questionnaire, is the simplest and most reliable method of

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determining a person's Jungian Type (Myers and Myers, 1990; and Soliday, 1992).

The items in the MBTI attempt to measure concepts of the Jungian psychology, three of which are explicit in his theoretical framework:

extraversion (E)----introversion (I)  
 sensing (S)----intuition (N)  
 thinking (T)----feeling (F)

The fourth dimension, judging (J)----perceiving (P) was added by Myers (Thompson, 1984, p. 128).

The first index, extraversion-introversion (E-I), measures an individual's attitude toward the world and life in general. The second and third indices, sensing-intuition (S-N) and thinking-feeling (T-F), are the four Jungian functions. The second index reflects the two different ways of perceiving the world, while the third index reflects two different ways of judging these perceptions. The fourth and final index measures an individual's preference for either judgment or perception (J-P).

The following summarizes each index as explained by Myers and Myers (1990).

Extraversion-Introversion (E-I) Index. The E-I determines whether an individual is extraverted or introverted. These are complimentary terms used to describe attitudes or orientations toward life. Extraverts (E) are oriented primarily to the outer world of people and things. They tend to be action-oriented, preferring experience over abstractions. They prefer interaction to solitude and gain energy by acting upon, and with their environment. Extraverts communicate easily and, because they are focused more towards others, they are considered more sociable than introverts.

Introverts (I) are oriented more toward the inner world of concepts and ideas. They are thoughtful and contemplative, preferring to rely more heavily on enduring concepts rather than transitory external events. Introverts gain energy from solitude and privacy. Generally less understood than extraverts who prefer to vocalize their thoughts and feelings, introverts are less vocal and perhaps less socially adept in crowds.

Both preferences are assumed to be variants of normal human personality and persons of both types can provide major contributions to society.

Sensing-Intuition (S-N) Index. The two categories of perception, sensing (S) and intuition (N), are functions attuned to the flow of external events. The S-N index reflects how a person chooses to gather information or perceive the world. Sensing (S) people prefer to rely most heavily on the five senses to observe facts or happenings. Using the five senses, they perceive the present moment for what it is, possess acute powers of observation, have memory for details, and exhibit practicality. They focus on the concrete experience.

Intuitives (N) perceive the world as possibilities, relationships, and meanings of events by way of insight or the unconscious. They rely more on hunches, guesses, or creative patterns in events rather than on the five senses. They prefer to go beyond what is visible to the senses to consider the possibilities that may exist. Intuitive individuals exhibit imagination, are more future oriented, theoretical, abstract, and creative than sensing type people.

Because of the contribution both of these types can make toward society, both are valued for their unique offerings.

Thinking-Feeling (T-F) Index. These functions explain how information is processed and decisions made. The T-F index reflects how a person prefers to make judgments or decisions. A person who prefers using the thinking (T) function makes decisions based more upon logic or objective fact. They are more logical, analytical and impersonal in their decision-making process. They prefer to view choices as either right-wrong, true-false, or positive-negative.

Individuals exhibiting a preference toward the feeling (F) function are more subjective than thinking types. A person who prefers to use the feeling (F) function makes decisions based more on personal or social values and subjective beliefs. They prefer to consider the personal and interpersonal values, merits and consequences of their decisions before taking action. They value harmony and wish to weigh the effect a decision may have on others before acting.

Both ways of deciding and evaluating are used by everyone, but one is usually preferred and better developed than the other.

Judgment-Perception (J-P) Index. The J-P index was designed by Myers and Briggs to help identify and describe the way individuals prefer to deal with the outer world around them. A person who prefers judgment (J) uses one of the judging functions (either thinking or feeling) to seek closure, is more orderly and planned in behavior. These individuals generally organize their life-style around purposeful, organized decisions.

A person preferring perception (P) uses one of the perceptive functions (either sensing or feeling) to look at the possibilities of life. They are usually more spontaneous, open, and adaptable in life style. They generally organize their life-style in an unrehearsed and adaptable way.

Both types are considered variants of normal healthy behavior and are thus appreciated for how they contribute to society (Myers and Myers, 1990; Myers and McCaulley, 1989).

#### THE MBTI AND TEACHER PERSONALITY

The MBTI is a self-report personality assessment instrument designed to identify the personality preferences of an individual along these four

dichotomous indices.

Four preferences are scored on the MBTI. These scales are: Extraversion-Introversion (EI), the basic orientation toward the inner or outer world; Sensing-Intuition (SN), the two kinds of perception; Thinking-Feeling (TF), the two kinds of judgment; Judging-Perception (JP), the two attitudes for dealing with the environment. The four preferences, one from each scale, combine to generate sixteen personality types. Each of the 16 types has its unique pattern of preferences. Once the patterns are understood, it is easy to see why the things that are interesting or easy for one type are uninteresting or hard for another type (patterns are shown by letters). Everyone uses all four of the basic mental processes, but has its own pattern in different orders of preferences as shown in Appendix A. Table 1 in Appendix A show the four type pattern designations. The patterns for each type also shows whether the first or favorite process is used mostly in the world of people and things (the extraverted way) or in the inner world of ideas (the introverted way).

Using the data banks from the Center For Applications of Psychological Type Myers and McCaulley (1989) reported on the distribution of the 16 types for persons describing themselves as secondary teachers on MBTI inventory forms scored between March 1978 and December 1982, shown in Table 2 below (from Table 8.21, Myers and McCaulley, 1989, p. 134).

Table 2

Distribution of MBTI Personality Types

MBTI	%	MBTI	%	MBTI	%	MBTI	%
ISTJ	11.86	ISFJ	10.63	INFJ	7.70	INTJ	5.39
ISTP	1.54	ISFP	2.47	INFP	6.32	INTP	2.93
ESTP	1.08	ESFP	2.31	ENFP	11.40	ENTP	3.54
ESTJ	11.25	ESFJ	8.47	ENFJ	8.78	ENTJ	4.31

Psychological Types in Business and Marketing Education

The MBTI has been used to assess the personalities of business and marketing teachers by the following researchers: Elias and Elias (1990); McPherson (1994); Plessman (1985); and Waner and Echternacht (1993). Results of these investigations proved to be quite consistent and are shown in Appendix B.

A large percentage of teachers in each sample were extraverted (51% to 62%, depending on sample), sensing (53% to 74%), feeling (55% to 66%, depending on the sample), and/or judging types (65% to 82%). The modal type for teachers in these samples appears to be ESFJ and ESTJ. Myers (1962) and Lawrence (1982) describes ESFJs as exceptionally dependable, thorough, conscientious, systematic, patient



with routine and detail, with a high priority placed on harmonious human contacts. They are very loyal to respected persons, institutions and causes. Their main interest is in the things that directly and visibly affect people's lives.

ESTJs use their thinking to run as much of the world as may be theirs. They are organized, have little patience with confusion or inefficiency, and can be tough when the situation calls. They are more interested in seeing present realities than future possibilities. This makes them matter-of-fact, practical, realistic, and concerned with the here-and-now.

The business educator personality type has also undergone considerable investigation (Schutte, 1967; Vogt and Holder, 1988; and Waner & Echternacht, 1993). These researchers found that business educators are different from other secondary classroom instructors and exhibit some common personality characteristics among themselves.

There have been two recent studies relating to business education and the MBTI, Vogt and Holder (1988) and Waner and Echternacht (1993). Vogt and Holder (1988) conducted a study using the MBTI involving 47 business teacher education students at the Division of Business Education at the University of Nebraska-Lincoln. They observed that two personality types, ESTJ (extraverted, sensing, thinking, judging) and ESFJ (extraverted, sensing, feeling, judging), appeared more frequently than any other types. Waner and Echternacht (1993) used the MBTI to compare personality types of business education teachers who teach office occupations with personality types of office professionals. Sixty-seven business teachers and 60 office professionals participated in the study. It was found a majority of the business teachers and office professionals clustered in four of the sixteen personality types ISTJ, ISFJ, ESTJ, and ESFJ. These four specific personality types appear to be ideal for business teachers and office professionals. Because office professionals exhibited fifteen of the sixteen personality types, more personality types are suited for office work than for teaching.

The business educator personality type has also undergone considerable investigation (Schutte, 1967; Vogt and Holder, 1988; and Waner & Echternacht, 1993). These researchers found that business educators are different from other secondary classroom instructors and exhibit some common personality characteristics among themselves. In their study of business teachers, Waner and Echternacht (1993) found the ISTJ and ISFJ to be the most prevalent personality type from their sample. In looking at the entire population of the current study, after ESTJs (23%) and ESFJs (16%), the next largest populations were ISTJs (14%) and ISFJs (13%). This is consistent with the findings of Waner and Echternacht (1993). Myers (1987) suggests that an individuals' combination of perception and judgment will significantly affect the kinds of work chosen and enjoyed.

**SUMMARY OF STUDIES ON MARKETING EDUCATOR PERSONALITY CHARACTERISTICS**

Meyer and Logan (1966) indicated that certain personal characteristics are needed for successful teaching in marketing education and that it is necessary to identify and develop these characteristics. Ashmun and Larson (1970) pointed out that some research on the competencies and behaviors of the effective marketing education staff member has been carried out but that additional information is necessary which may supply answers to problems in this area.

The key person in conducting the local marketing education program is the marketing education teacher-coordinator (Hansen, 1975, p. 5). Researchers have reported on the importance of the organization and administration of marketing education in secondary schools by stating, ...that the teacher/coordinators were the strongest single feature in marketing education program. Gordon (1978) reaffirmed this position, "The coordinator is the strongest single feature of the program" (p. 62). The role of the teacher-coordinator must be clearly understood by himself as well as by persons providing direction and leadership in his professional responsibilities (Hansen, 1975, p. 2). The marketing education teacher-coordinator according to Martel (1971) has so many duties in so many different places that it is difficult for other faculty members, the administration, and the community to see what he actually does. The role of the teacher-coordinator would seem to be broad and multifaceted (Hansen, 1975, p. 15). The literature supports that the duties, responsibilities, and characteristics of secondary, marketing education teacher-coordinators (SMETCs) are unique (see Appendix C for duties of SMETCs). This uniqueness has lead some researchers (Elias & Elias, 1990; and Plessman, 1985); to investigate the personality type of marketing educators.

Schutte in 1967 surveyed the literature relating to marketing/business educators and showed that a substantial amount of research has been directed toward attempts to identify the personality characteristics of teachers, but studies which included business education teachers in service are notably lacking (Schutte, 1967, p. 6). As recent as 1988, during the National Conference on the Future of Business Education in Cincinnati, Ohio, a selected group of leaders in education, business, and government met for two and a half days to determine the present status of business education and provide direction for the future growth of the profession. The purpose of the conference was to study the crises of the decrease in business education programs at the secondary and post-secondary levels and to recommend action so American businesses can be assured of a skilled workforce. The conference participants identified needed research in five areas and specifically the "Personality Factors Affecting the Choice of Business Education as a Career" (Friedheim & Hargrove, 1985, p. 29). Vogt and Holder (1988) recommended that additional research is needed to develop further the personality profile of business education teachers...(p. 41). Recently, Waner & Echternacht (1993) recommended that future and current business teachers should know their personality type and the strengths and weaknesses associated with their personality type.

In studies completed on SMETCs' personality, some researchers have

described the teacher's personality as a primary ingredient in the learning process, and have indicated that the characteristics of a good teacher should be identified in order to provide more good teachers and fewer poor ones (Hansen, 1975, p. 31). Little (1972) studied the personality characteristics of post-secondary marketing education personnel and satisfactions they received from their jobs. Little (1972), in his study of post secondary marketing education personnel, found the following characteristics among them: warm, outgoing, more intelligent, assertive, happy-go-lucky, venturesome, less neurotic, creative, experimenting, and responsive.

Olson (1967) in his study to determine the relationship between certain personality characteristics of high school marketing education staff members and their job satisfactions, found that they were outgoing, intelligent, venturesome, conventional, extroverted, group dependent, and leaders. Both Little (1972) and Olson (1967) measured personality by using Cattell's Sixteen Personality Factor Questionnaire and the Minnesota Satisfaction Questionnaire.

Mayleben (1973) conducted a study to determine the contributory effect that the perceived similarities of four broad components of personality (ascendancy, responsibility, emotional stability, sociability) had upon the rating of marketing education students and student teachers. He concluded that it appeared that some relationship existed between the performance and attitude rating of the marketing education student and student teacher and the perceived similarities in the four broad components of personality. However, it was unclear what the relationship was.

Swenson (1976) studied personality type as a factor in predicting academic achievement, satisfaction, success, and group membership of business and marketing education teacher candidates. His study found that business and marketing education teacher candidates differed slightly in personality type and pattern.

Plessman (1985) investigated the relationship between personality characteristics and job satisfaction of 344 secondary marketing education teachers who were members of the Marketing Education Association. She found that three personality types, the ESTP (extraverted, sensing, thinking, perceptive), ESTJ (extraverted, sensing, thinking, judging) and ENTJ (extraverted, intuitive, thinking, judging) were found to be much more common in the secondary marketing population. Type distributions for marketing teachers showed a significantly greater proportion of extraverted, sensing, thinking types (significant at the .001 level) and judging types (significant at the .01 level). There were significantly fewer proportions of introverted, intuitive, feeling (significant at the .001 level) and perceptive (significant at the .01 level) marketing teachers than junior/senior high teachers.

Elias and Elias (1990) conducted a comparison study of personality characteristics of marketing teacher education majors to educational and marketing personnel. Of the 89 marketing education majors studied, they found the two personality types, ESTJ (extraverted, sensing, thinking, judging) and the

ESFJ (extraverted, sensing, feeling, judging) appeared with greater frequency than any other of the other 14 types. Not one student was reported in either the ISFP (introverted, sensing, feeling, perceiving) or the INFP (introverted, intuitive, feeling, perceiving). Almost 65% of the students preferred the sensing (S) process.

McPherson (1994) studied 91 secondary marketing educators. Regarding the actual distribution of personality type, it was found that the ESTJ (Extraverted, Sensing, Thinking, Judging) was the most prevalent personality type among SMETCs. Thirty individuals registered this personality category, thus accounting for almost a full third of this total group. ESFJs (Extraverted, Sensing, Feeling, Judging) and ENFJs (Extraverted, Intuitive, Feeling, Judging). This was consistent with the findings of previous research into the personality types of SMETCs (Elias & Elias, 1990; and Plessman, 1985).

#### THE DOMINANT PERSONALITY TYPES IN MARKETING EDUCATION

The two dominant MBTI personality types found among marketing educators are: Extraverted, Sensing, Feeling, and Judging (ESFJ) & Extraverted, Sensing, Thinking, and Judging (ESTJ). Myers and McCaulley (1989) found the following description of each personality type.

ESFJ - People with ESFJ preferences radiate sympathy and fellowship. They concern themselves chiefly with the people around them and place a high value on harmonious human contacts. They are friendly, tactful, and sympathetic. They are persevering, conscientious, orderly even in small matters, and inclined to expect others to be the same. They are particularly warmed by approval and sensitive to indifference. Much of their pleasure and satisfaction comes from the warmth of feeling of people around them. ESFJs tend to concentrate on the admirable qualities of other people and are loyal to respected persons, institutions, or causes, sometimes to the point of idealizing whatever they admire.

They have the gift of finding value in other people's opinions. Even when these opinions are in conflict, they have faith that harmony can somehow be achieved and they often manage to bring it about. To achieve harmony, they are ready to agree with other's opinions within reasonable limits. They need to be careful, however, that they don't concentrate so much on the viewpoints of others that they lose sight of their own.

They are mainly interested in the realities perceived by their five senses, so they become practical, realistic, and down-to-earth. They take great interest in the unique differences in each experience. ESFJs appreciate and enjoy their possessions. They enjoy variety but can adapt well to routine.

ESFJs are at their best in jobs that deal with people and in situations where cooperation can be brought about through good will. They are found in jobs such as teaching, preaching, and selling. Their compassion and awareness of physical conditions often attracts them to health professions where they can

provide warmth, comfort, and patient caring. They are less likely to be happy in work demanding mastery of abstract ideas or impersonal analysis. They think best when talking with people, and enjoy communicating. They have to make a special effort to be brief and businesslike and not let sociability slow them down on the job.

They like to base their plans and decisions upon known facts and on their personal values. While liking to have matters decided or settled, they do not necessarily want to make all the decisions themselves. They run some risk of jumping to conclusions before they understand a situation. If they have not taken time to gain first-hand knowledge about a person or situation, their actions may not have the helpful results they intended. For example, ESFJs beginning a new project or job may do things they assume should be done, instead of taking the time to find out what is really wanted or needed. They have many definite "shoulds" and "should nots," and may express these freely.

ESFJs find it especially hard to admit the truth about problems with people or things they care about. If they fail to face disagreeable facts, or refuse to look at criticism that hurts, they will try to ignore their problems instead of searching for solutions.

ESTJ - ESTJ people use their thinking to run as much of the world as may be theirs to run. They like to organize projects and then act to get things done. Reliance on thinking makes them logical, analytical, objectively critical, and not likely to be convinced by anything but reasoning. They tend to focus on the job, not the people behind the job.

They like to organize facts, situations, and operations related to a project, and make a systematic effort to reach their objectives on schedule. They have little patience with confusion or inefficiency, and can be tough when the situation calls for toughness.

They think conduct should be ruled by logic, and govern their own behavior accordingly. They live by a definite set of rules that embody their basic judgments about the world. Any change in their ways requires a deliberate change in their rules.

They are more interested in seeing present realities than future possibilities. This makes them matter-of-fact, practical, realistic, and concerned with the here-and-now. They use past experience to help them solve problems and want to be sure that ideas, plans, and decisions are based on solid fact.

They like jobs where the results of their work are immediate, visible, and tangible. They have a natural bent for business, industry, production, and construction. They enjoy administration, where they can set goals, make decisions, and give the necessary orders. Getting things done is their strong suit.

Like the other decisive types, ESTJs run the risk of deciding too quickly before they have fully examined the situation. They need to stop and listen to the other person's viewpoint, especially with people who are not in a position to talk back. This is seldom easy for them, but if they do not take time to understand, they may judge too quickly, without enough facts or enough regard for what other people think or feel.

ESTJs may need to work at taking feeling values into account. They may rely so much on their logical approach that they overlook feeling values-what they care about and what other people care about. If feeling values are ignored too much, they may build up pressure and find expression in inappropriate ways. Although ESTJs are naturally good at seeing what is illogical and inconsistent, they may need to exercise their feeling to appreciate other people's merits and ideas. ESTJs who make it a rule to mention what they like, not merely what needs correcting, find the results worthwhile both in their work and in their private live.

#### RECOMMENDATIONS FOR MARKETING EDUCATION

Pre-service Teachers - Although no absolute exists, it appears that within undergraduate marketing and business teacher education programs, a knowledge of student personality type could be a useful tool in helping to direct the training of pre-service teachers. For example, given that some of the studies found relationships between personality types and profession (i.e, marketing vs. business), information on an undergraduate's MBTI personality type might well serve as an effective counseling tool. Although students should never be discouraged from entering the field of marketing education solely on the basis of personality type, it is an advantage to all concerned to have a better understanding, in advance, of the nature of the career and the professionals with whom they would be working.

In-Service Teachers - An understanding of personality type theory has potential for usefulness for administrators in the teacher placement process. Given the strong evidence presented herein between the relationship between personality and profession, an informed administrator might well be able to avoid a "mis-match" between teacher candidate and teaching assignment. This also has important implications for the creation of individual teacher schedules.

This same relationship may be helpful when administrators are faced with the prospect of evaluating teachers and recommending professional improvement plans. If it appears that certain business or marketing teachers are experiencing difficulty with various instructional methods or with various subject areas, and knowledge of personality type and preferences could be helpful in developing professional improvement plans.

This knowledge of personality type could further aid in-service teachers in understanding their own natural personality types and their preferences for various instructional methods. This added insight may cause them to become more cognizant as to why certain instructional tasks seem "more natural" than others.

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APPENDIX A

Table 1

Myers-Briggs Type Indicator Sixteen Personality Type Characteristics

Sensing Types		Intuitive Types	
<p><b>ISTJ</b> Serious, quiet, thorough, practical, orderly, matter-of-fact, logical, realistic, dependable, well-organized, responsible, and independent.</p>	<p><b>ISFJ</b> Quiet, friendly, responsible, conscientious, thorough, accurate, considerate, loyal, perceptive, and concerned for the feelings of others.</p>	<p><b>INFJ</b> Persevering, original, quietly forceful, conscientious. Respected for firm principles and clear convictions. Concerned for common good.</p>	<p><b>INTJ</b> Original mind, firmly committed to their ideas and purposed. Skeptical, critical, independent, determined. Good organizers and implementers.</p>
<p><b>ISTP</b> Quiet, reserved, observes, and analyzes with detached curiosity and humor. Interested in cause/effect, how/why, facts/principles issues.</p>	<p><b>ISFP</b> Retiring, quietly, friendly, sensitive, kind, modest, loyal follower, present-moment oriented, relaxed about getting things done. No arguing.</p>	<p><b>INFP</b> Enjoys learning, ideas, language, and independent projects. Focused, quiet, over-reaching. Friendly but too absorbed to be sociable.</p>	<p><b>INTP</b> Quiet, reserved, theoretical, scientific. Solves problems using logic and analysis. Likes ideas. Has sharply defined interests.</p>
<p><b>ESTP</b> on-the-spot problem-solver, adaptable, tolerant. Conservative values. Likes mechanics and real things that can be worked with and handled.</p>	<p><b>ESFP</b> Outgoing, easygoing, accepting, friendly. Enjoys life and makes life fun for others. An eager joiner. Practical and common sensical.</p>	<p><b>ENFP</b> Warm, ingenious, high-spirited, enthusiastic, imaginative, quick, improvisational. Find compelling reasons for what they want. Fast answers.</p>	<p><b>ENTP</b> Quick, ingenious, stimulating, alert, outspoken, resourceful. Argues issues for fun and has a series of interests. Neglects routine.</p>
<p><b>ESTJ</b> Practical, realistic, matter-of-fact, good business person or mechanic. Organizer and leader. Good administrator when thoughtful</p>	<p><b>ESFJ</b> Warm-hearted, talkative, popular, conscientious, cooperative. Like harmony, encouragement, and things which directly/visibly affect others.</p>	<p><b>ENFJ</b> Responsible, sociable, popular, responsive to praise and criticism, concerned for what others think and want. Good speaker/group leader.</p>	<p><b>ENTJ</b> Hearty, frank, curious, well-informed. Enjoys intelligent talk/public speaking. Decisive leader. At times overly confident and positive.</p>

Source: Isabel Briggs Myers and Mary H. McCaulley, Manual: A Guide to the Development and Use of the Myers-Briggs Type Indicator (Palo Alto, CA: Consulting Psychological Press, 1989), 20-21.

APPENDIX B

Table 3

Summary of MBTI Type Preferences of Teachers from Previous Studies

Study Sample	N	MBTI Type Categories							
		E	I	S	N	T	F	J	P
Secondary marketing teachers from Marketing Education Association (Plessman, 1985)	344	226	118	231	113	206	138	260	84
Business teacher education majors at the University of Nebraska (Vogt and Holder, 1988)	47	34	13	43	4	16	31	34	13
Marketing teacher education majors at the University of Columbia (Elias and Elias, 1990)	89	73	16	57	32	45	44	53	36
Business teachers who teach office occupations in State of Missouri and members of Delta Pi Epsilon (Waner and Echemacht, 1993)	67	31	36	59	8	33	34	56	11
Secondary marketing education teachers in the State of New Jersey (McPherson, 1994)	91	68	23	64	27	56	35	66	25

**APPENDIX C  
DUTIES AND RESPONSIBILITIES OF SMETCS**

Crawford (1967), Crawford & Meyer (1972) and Ivins and Runge (1951) developed lists of duties and responsibilities performed by marketing education personnel. Specifically, these duties include:

**(a) Organization and Promotional Activities.**

1. Survey needs of community for various type of marketing training.
2. Counsel with prospective student-trainees regarding the marketing education program.
3. Counsel with parents of prospective student-trainees.
4. Contact employers and explain the marketing education program.
5. Select student-trainees for the marketing education program.
6. Maintain a functioning advisory committee.
7. Maintain continuing publicity on the accomplishments of the program.
8. Make speeches before business, school, and other groups to explain the program.
9. Establish rules and regulations for the operation of the program.

**(b) Classroom Instruction**

1. Obtain and prepare instructional materials for individual and group needs.
2. Teach vocational classes based on student-trainees needs on the job.
3. Teach related classes to student-trainees.
4. Correlate the on-the-job training of student-trainees with classroom instruction.
5. Understand and apply job analysis.
6. Use good variety of teaching methods in accordance with class and individual needs.
7. Instruct with a vocational objective.
8. Maintain current instructional materials.
9. Prepare individual lesson assignments for instruction to each student-trainee

**(c) Coordination.**

1. Secure training stations and set up training agreements for student-trainees.
2. Plan a schedule and system of supervision with employers and training sponsors.
3. Place student-trainees in training stations.
4. Carefully follow-up student-trainees periodically to carry out training agreements and check on progress of on-the-job training.
5. Secure ratings from employers and sponsors on student-trainee progress.
6. Adjust problems of student-trainees with employers, school, parents or other concerned.
7. Arrange student-trainee work and school schedules.
8. Work with faculty for general improvement of program.

**(d) Follow-Up and Evaluation.**

1. Make periodic visits to student-trainees on the job and to employers of trainees.
2. Counsel student-trainees to make adjustments for greater progress in chosen career objective.
3. Counsel with former student-trainees.
4. Report follow-up information to school and recommend needed adjustments in the curriculum.
5. Make regular reports to school and community regarding the progress of the marketing education program.
6. Conduct conferences with individual student-trainees on personal achievement and job progress.

**APPENDIX C**  
**DUTIES AND RESPONSIBILITIES OF SMETCS**  
**(continued)**

**(e) Other Related Duties.**

1. Sponsor clubs and extracurricular activities that are directly related to the marketing education program.
2. Keep records of student-trainees and their training.
3. Help with other vocational guidance activities that affect the marketing education program.
4. Prepare budgets and other reports related to the marketing education program.
5. Be prepared to organize and/or teach adult marketing education classes.

**AACSB: THE SCRANTON STORY**

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**ABSTRACT**

*This article reports on the informal requirements for achieving AACSB accreditation based on the authors' success at the University of Scranton. Success requires resources, support from the central administration, support from the faculty, a determined dean and an effective coordinator. We give suggestions on selecting the visitation team, enhancing the visibility of the business school among other business deans, increasing intellectual contributions of the faculty, and coordinating a university-wide effort to achieve accreditation. Quality is essential, but so is recognition of that quality by the profession. Accreditation is what a university, not just a school of business, achieves.*

**INTRODUCTION**

This is the story of a successful effort at achieving AACSB accreditation. We take it as given, at least it was for the University of Scranton, that seeking accreditation is consistent with and supportive of an institution's dedication to high quality in business education. Scranton has a better and stronger program resulting from this effort. At the same time, we do not minimize the difficulties in achieving accreditation. In this article, we go beyond the requirements specified by the AACSB and report on the informal aspects of our effort. We consider preconditions and standards that are not explicitly stated, but that should be satisfied none the less, in order to increase a school's likelihood of success. We provide an account of Scranton's experiences in ultimately achieving this goal. The authors of this paper served respectively as dean and as accreditation coordinator for Scranton's School of Management during this period.

**PRECONDITIONS**

The AACSB sets a number of preconditions for accreditation. These preconditions must be satisfied before meeting the standards is even considered.

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A school really should be able to meet these preconditions. For example, an institution must be regionally accredited and the business unit must have its own budget and full-time faculty. But success in the accreditation process requires a school to meet certain unstated preconditions.

1. Resources. It takes substantial resources to meet the standards of quality which AACSB requires in scholarship (termed intellectual contributions), faculty, curriculum, and service. There very definitely are standards for full time, doctorally qualified, publishing faculty. The number of such faculty required could strain the resources of some institutions. Even in today's market for business faculty, the type of faculty and the teaching loads required for success in accreditation demand greater resources than some schools possess. This is especially true if the institution offers master's programs. In addition, the type of faculty needed to meet accreditation standards has expectations for support of professional activities which places even greater demands on an institution's resources.

2. Support from central administration. This support must be a mile wide and a mile deep. Not only must an institution have the resources, but the administration must be willing to commit these resources and stand by the business school during the long haul. The administration must make accreditation an institutional goal, not just a goal for the business school. This commitment must be public within the institution, although some diplomacy in external public relations should be used. Few unaccredited schools would admit that their accredited competitors are better than they are; thus some delicacy may be expected in dealing with prospective students. Internally, however, it must be very clear that the administration fully supports accreditation. Most provosts and presidents do not understand what is required for accreditation. Frankly, attending AACSB meetings may, in our judgement, lead them to believe that there is now more flexibility in the requirements than actually exists. In our opinion, AACSB accreditation is the most difficult specialized accreditation of any academic field, and the administration must be committed to achieving it through thick and thin.

3. Support from the faculty. The new standards make accreditation now, more than ever, a faculty achievement. No school will achieve accreditation without enthusiastic support from most of its faculty. Support will never be one hundred percent. In any large group of intellectually independent individuals there will be disagreements and dissenters. Also, support will vary depending on the circumstances at any given time. But, overall, there must be a commitment on the part of faculty to do what is required to achieve the high levels of quality consistent with AACSB standards.

4. A determined dean. There are going to be reversals and disappointments. There will be calls by some to give up the effort or to delay it. The dean must never let anything get in the way of that ultimate goal. The dean must cheer every success of the faculty and give everyone all of the encouragement that you can, but always have the firm conviction that the goal will be achieved. There may be unanticipated delays, but achievement of the goal

is a certainty. The dean must keep the team moving toward the goal. What is required here is determination, organization, and steadfast effort. Ulysses S. Grant, not Robert E. Lee.

5. An effective accreditation coordinator. The individual who will coordinate the effort and edit the self-evaluation report is absolutely key to the ultimate success of the effort. The school must choose someone who is an excellent writer, can coordinate the work of diverse faculty teams in preparing reports, and gain the willing or even eager cooperation of faculty in providing the data and information required by the visitation team. The coordinator must be willing and able to devote whatever time it takes to get the job done. The demands on a dean or associate dean are such that they cannot realistically perform this function. The coordinator should be a faculty member who is given generous released time, incentives, support, and all of the freedom of action required. The role of the dean is to choose the right individual, convince him/her to accept the assignment, and then provide unqualified support.

#### STANDARDS

The formal standards of the AACSB require a more subjective evaluation of the school than the specified preconditions. This is especially true of the new standards. Likewise, there are those unstated standards that a school should attempt to satisfy, which are even less cut and dried, but which will help make a positive impression and increase the likelihood of a favorable recommendation.

1. A congenial visitation team. The selection, care and feeding of the team is an important ingredient in attaining ultimate success. This is just as important to an institution achieving accreditation as a dissertation committee is to a candidate receiving a doctorate. Most of the work is finished before getting to that stage, but the wrong people (or people who do not get along with each other) can spoil a beautiful effort. It is important to get to know people who are members of the accreditation council and who would be likely choices for your team: the dean should attend as many meetings of business deans as possible. The dean has some control over who will be on the visitation team, and even more importantly, who will not be on it. Individuals of a naturally generous nature, from schools comparable to yours, are ideal candidates for your team. Get to know people who have been on accreditation visits with potential members of your team, and get their opinion on the suitability of those you may be considering.

2. Call your school to the attention of potential team members. Get on AACSB programs, both national and regional. Get on the programs of other meetings attended by deans. Host the regional meeting of the AACSB and of other organizations, and make sure that the meetings you host go well. Go all out. Make them first class. Sponsor meetings or sponsor sessions at meetings and support newsletters and other publications. Some schools have even begun their own organizations or publications in an effort to enhance their reputations.



3. Points of light. Develop innovative or distinctive programs. These can serve as the focus for presentations at meetings (see above). The dean's role is to encourage faculty members to be creative and implement their ideas.

4. Enthusiasm. Everyone with whom the visitation team meets should be enthusiastic about the school. Professional staff and administrators should be briefed as to what will be expected so that they are well-prepared. Students and members of the business community who visit with the team should be enthusiastic supporters of the school. Of utmost importance, however, is the faculty. Faculty must understand that they cannot use the team to leverage the administration. Scheduling the visit when the most militant faculty will be off campus is surely advantageous.

### ACHIEVING THE GOAL AT SCRANTON

#### Background

The University of Scranton established the School of Management in 1978 with 18 faculty members and the long term goal of achieving the excellence recognized by AACSB accreditation. The University focused resources on people and programs to establish the foundation for a business school of the quality consistent with the Jesuit nature of the institution. At its founding, faculty of the school lacked the academic qualifications required for accreditation, teaching loads were very heavy, and one might reasonably have questioned whether the goal was ever achievable. The difficulty and time required to achieve accreditation was probably underestimated. Over the next eight years, progress was made in hiring doctorally qualified faculty, but the school was still far from meeting quantitative standards for doctoral and full-time coverage of classes.

#### Reaffirming the Goal

A reaffirmation of the goal of accreditation was made with the hiring of a new dean in 1986. Central administration committed to the process of achieving accreditation, without deviation, by filling permanent positions only with doctorally qualified faculty with a record or potential for scholarship. No timetable was set, but the goal was certain.

Like many schools of business, Scranton's School of Management experienced declining enrollment in the early nineties. While central administration refrained from filling all positions as vacancies occurred, some were filled considering the need to meet accreditation standards for the deployment of full time, doctorally qualified faculty and the standards for intellectual contributions (research). Four positions out of forty four were not filled.

Some faculty members expressed doubts about the administration's continued support of accreditation in light of declining enrollments and expressed concern about faculty reappointments. They asked that administration publicly reaffirm its commitment to accreditation and state, in writing, that existing faculty

members would not lose their jobs. Interestingly, the faculty who expressed the most concern tended to be those who were not in favor of accreditation. Given the union environment at Scranton, the administration was not willing to provide such written assurance, although it did indicate informally that tenure track faculty members had no reason to fear for their positions.

The two matters of job security and commitment to accreditation were commingled. Unfortunately, a meeting of the central administration with faculty to reassure them of its commitment was repeatedly postponed, adding to the uncertainty and confusion. When finally held, the meeting was almost anticlimactic with the expected assurances of continued support from both the President and Vice President. Considerable time and energy were devoted to this effort at reassurance, time and energy that might have been used more productively to further continuous improvement of the school.

The next step after reassurance from the central administration was to seek reaffirmation of support from the faculty. This was accomplished by a secret ballot vote in 1991 - 92. The results were 32 to 8 in favor of seeking accreditation. We viewed this 80% favorable vote as strong faculty commitment to the goal of accreditation. Moving full speed ahead, we decided 93 - 94 was reasonable for our self-evaluation year. When candidacy status was established by the AACSB, Scranton was among the first to apply and be accepted into candidacy status in October, 1993.

#### Concrete Steps Toward Accreditation

Both before and after achieving candidacy, we invited experienced advisors to our campus every year to help evaluate our efforts and provide guidance as to what we should accomplish to successfully achieve accreditation. These evaluations were useful, but they did not necessarily identify the same concerns. The evaluation of quality is an art and not a science. To reduce conflicting recommendations, we suggest using advisors who are familiar with your type of school. As an example, we are a Catholic institution, and as such, service to charitable organizations is an important part of our mission and part of the faculty's responsibility. Some advisors did not initially understand this. In another instance, one advisor traumatized some of our faculty with publication expectations which were simply inconsistent with the nature of our institution because of how he interpreted our University's mission statement reference to "serious scholarship." Perhaps the University's mission statement should have referred to "non-trivial scholarship"! We did, however, address this concern by demonstrating that the intellectual contributions of School of Management faculty compared favorably to those of the rest of the University.

We did a number of things, both internal and external, which brought Scranton's School of Management to the attention of other business school deans. It should be stressed that these things were good quite apart from accreditation. We created the School of Management Advising Center which provides academic advising to all full-time undergraduate students. We presented this success story at the AACSB meeting on undergraduate education. We reestablished the

Center for Economic Education and hired a faculty member, who is nationally known in this field, as its director. He promptly won the Freedoms Foundation Award for Private Enterprise Education. Prior to hiring the new director, the dean, acting as its director himself, kept the Center going as a point of light for the school. The new director succeeded even beyond the dean's expectations.

The dean instituted a Student Advisory Council that met regularly to provide student input into decisions. Comprised of the presidents of student organizations affiliated with the School of Management, this resulted in a group of enthusiastic, highly articulate students who were not chosen by the dean or the faculty. They played a role in developing the school's strategic plan and mission statement. The visitation team was most impressed with this Council. We started a formal system of program reviews which emphasized continuous improvement thus providing an important element in assessment. We started the Business Leadership Program, a highly competitive program for selected students. This program helped us to build relationships with the business community. This was particularly important because our Business Advisory Council had been helpful primarily in the development of our mission statement. The Director of this program played a critical role in relations with the business community for our accreditation effort.

Yes, we did start some efforts which we hoped would become points of light that, at times, seemed dim or almost extinguished. You just don't let those go out. You keep pushing those that may yet pay off. It would have been easy to kill off the Center for Economic Education when its flame was flickering. It took some sacrifice, but we kept it going, and it eventually paid off handsomely.

The dean also undertook systematic actions to establish Scranton as the regional leader in business education. We initiated an annual lecture which brought major economists (Afred Kahn, Robert Solow, Alan Blinder, Alice Rivlin, and Robert Lucas) to our campus. We invited deans and faculty leaders from neighboring schools in our area not only to the lecture, but to dinner with the speaker. The dean initiated regular meetings of the heads of regional business programs, the first of which was hosted by Scranton. When AACSB advisors were visiting our campus, regional business deans were invited to meet with them, usually over dinner. This gave local deans the advantage of increasing their knowledge of accreditation. It also convinced the AACSB advisors that Scranton is recognized by others in the area as the premier business school. Indeed, at least one local dean communicated this to a member of our visitation team. This helped us build the case that if there is going to be an AACSB accredited business school in Northeast Pennsylvania, it will be Scranton.

We moved the International Academy of Business Disciplines Newsletter and the Eastern Academy of Management Women's Network Newsletter to the University of Scranton. We edited several proceedings volumes at Scranton. We sponsored or cosponsored meetings and coffee breaks at meetings of other academic organizations. One of our faculty members was rapidly achieving recognition in the leadership of the Academy of International Business. We had the opportunity to host back to back meetings of the Northeast Academy of International Business

in 1993 and 1994. Disappointments? Yes. For example, we could have hosted the Pennsylvania Economic Association meeting, but no one was willing to take on this very considerable task. All of these successes had the effect of presenting the University of Scranton as a place where things are happening academically and where the faculty are active in their academic fields.

The crowning effort for our institution was to host the best ever meeting of the Middle Atlantic Association of Colleges of Business Administration, the regional AACSB organization, in 93 - 94, our hoped-for self study year. The timing would provide maximum impact since it would influence the opinion of a large number of deans shortly before the decision on a visit and only a year before the visit itself. We got exactly what we wanted. Then we were asked to change the date to Fall, 1992. We did. We were fortunate to have a faculty member who was willing to take on this responsibility. He gets things done, putting in whatever time it takes to reach perfection. Every aspect of the meeting was perfect, including the Broadway Company performance of the Music of Andrew Lloyd Weber as featured entertainment followed by a private reception with the cast. Scranton was the only stop between New York and Chicago. Sometimes there are advantages to being at a Jesuit Institution! The final result was a very fine impression on deans from throughout the Middle Atlantic states.

#### Selection, Care and Feeding of the Team

The dean attended four or five meetings of business school deans a year, plus several meetings of academic associations which included deans. Whenever possible, he tried to get on the program in some capacity. He felt that he must be being shadowed by another dean who appeared on many of the same programs, apparently following the same strategy as he prepared for his first reaccreditation visit. Attendance at these meetings gave the dean a large number of friends and acquaintances with knowledge of potential visitation team members. They provided valuable insights on prospective team members. "This guy never saw a school he thought should be accredited." "He has a lot of credibility with the initial accreditation committee. Get him if you can." "He's a nut on technology. If you're strong there, you're in." "He will go along with whatever the other two decide. If you are sure of them, he's OK." "He will get on one little thing and chew you to death on it." "Well, he was on my team, and ..." "Very knowledgeable, very fair. Understands small schools." "Sees the big picture. He won't hang you up on details. Really interested in overall quality." The result of our selection process was a team which understood our particular situation, gave us a fair hearing, made useful recommendations which will help strengthen Scranton's program, and had considerable credibility with the initial accreditation committee.

Visiting advisors, and certainly members of the visitation team, were treated as royalty. They were met at the airport. When they got to the University of Scranton room, at the best hotel in the city, they were greeted with a beautiful bouquet of flowers. One of them was allergic to flowers. So we substituted Gertrude Hawk chocolates, which had the advantage of being a local product; and they were to meet the CEO of the company as a representative of the

local business community. All things considered, the candy was probably more effective than flowers anyway. We should have thought of this important local touch. At the end of the visit we presented each member of the visiting team with a small hand crafted metal tray made in Pennsylvania as a memento of Scranton. For more information on how to royally treat a visitation team, contact El Colegio del Este in Puerto Rico. Having served on a Middle States visitation team to El Colegio, the dean can attest to the fact that the El Colegio staff are experts.

#### THE FINAL DRIVE TO ACCREDITATION

So we went into 93 - 94 with the hope that it would be our self evaluation year and with the intent that it would at least be a dry run of the self evaluation. On the recommendation of our AACSB advisor, we made it our dry run. He felt that if we had a visit at that time, it would not be successful, and that we needed to increase our intellectual contributions, enhance our computer labs, and improve the presentation of our self-evaluation report.

To increase our intellectual contributions, he suggested creating a summer research fund specifically for the School of Management. School of Management faculty members were already eligible to participate in the university - wide summer grant program, but while these were relatively large in amount, they were few in number. We needed to involve large numbers of faculty, especially those who had not been active. Thus a smaller award, available to anyone with a credible proposal, was preferable. A Scranton innovation is that the deciding control would not be at the application stage, but at the end of the process. Payment would be made only when a completed paper was submitted for publication. Because of the long lag in the review process, acceptance was not required. The central administration bought into this proposal with a guarantee of \$30,000 a year. The first year, thirty seven of the forty faculty members applied, and thirty five had at least one proposal approved. We credit this as being the final push which put us over the top on intellectual contributions.

On the basis of our advisor's evaluation of our computer labs, the central administration provided immediate upgrades for existing computers and a promise of 486's (then state of the art) on the completion of a training program for a major new local employer. The training program was extended, so we did not get the 486's as scheduled. The advisor from our visitation team noted this as a problem, so we got Pentiums before the team arrived, an even better result.

The final and most important advice of our 93 - 94 advisor was that we appoint a faculty member with plenty of released time, and whatever incentives might be required, to coordinate the collection, analysis and presentation of data for our case. He said superb writing skills and excellent interpersonal skills were required. As a faculty member, our advisor had done this, which is why he is now a dean. We followed this advice, and it worked.

The accreditation coordinator was provided graduate assistants, secretarial help on an overtime basis, and anything else she felt she needed. She worked

nights and weekends, whatever it took to get the job done. She was especially successful in getting the enthusiastic cooperation of faculty in supplying the required information. The few who did not respond to her cheerful approach were turned over to the dean and responded to his, "This is an order" back up approach. In fact, at least one faculty member insisted that the request come as an order from the dean, rather than from a faculty peer. At any rate, the appointment of this accreditation coordinator was a key element in our success.

Central administration's willingness to provide these last three requirements demonstrated to the visitation team that accreditation was not just something the business school wanted. The team met with administrators and faculty from other schools of the University who also showed support for accreditation. Most important of all, however, was the enthusiasm displayed by faculty, both in the School of Management faculty meeting with the team and in the Dean's Conference that included faculty from outside the School. This was not something which was arranged in advance, but the faculty had been well prepared on the importance of an enthusiastic response to the team.

The School of Management is located in an old building. Appearances do count. It would have been very nice to have a new building or at least a complete renovation of our building in time for the visit. Since this was not possible, maintenance did a rush paint up and fix up to make the best possible impression on the team. This helped. So did extraordinary work by the library staff in preparing comparisons of our business holdings with other small accredited institutions, and the home institutions of the visitation team members. The library had mistakenly combined these two categories with the all accredited category (dominated by big doctoral granting institutions), which made us appear in the bottom half! They worked over the weekend to rectify the problem and give us the data to show that the library was one of our strong points, as we had known. The central administration let everyone, including buildings and grounds and food service personnel, know that this visit had the highest priority. The result was excellent service and the presentation of the University as a quality operation in every respect.

The perception of high quality was enhanced by the excellent shape of our files. Our Advising Center had the student files perfectly organized. The self evaluation and faculty files prepared by our accreditation coordinator were noted as the best organized the members of the team had ever seen. Presentation and impressions do count. This was the perfect finish to a very long effort that involved many, many people to present the School as a quality operation to every audience that might possibly influence the team.

CONCLUSION

Accreditation is a long and difficult process. The preconditions and standards we list distill the experience we gained in our successful accreditation effort. The narrative provides a more detailed account from the trenches. We have emphasized considerations other than the formal standards of the AACSB. The intention, of course, is to meet them and to have a program of genuinely high quality. It is also important that every opportunity be taken to demonstrate the dedication of not just the School, but the entire University, to high quality in business education. Accreditation is very much something a university, not just a school of business, achieves.

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BRINGING ETHICS INTO THE BUSINESS CLASSROOM:  
THOMAS AQUINAS ON THE MORALITY OF CHARGING INTEREST

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ABSTRACT

*Charging interest on money loans is a generally accepted aspect of the time value of money. Typically, when this topic is taught, there is no discussion or treatment of the moral dimensions of such a normal business activity. But moral philosophers of the past debated for centuries about the morality of charging interest. Thomas Aquinas, in his treatise on the sin of usury, concludes that charging any interest on loans is usurious. This paper attempts to explicate the argument presented by Aquinas and how our notion of usury has changed over the centuries. This is done by examining the Aristotelian-Thomistic idea of money and how it relates to their distinction between consumption and non-consumption goods. This knowledge can be used to help enliven the often laborious and dry classroom treatment of time value of money.*

INTRODUCTION

The pressure has gradually but persistently increased to bring into the business classroom a discussion of the ethical dimensions of common business practices. Usually, however, there is a general reluctance to broach these topics. Perhaps most of this aversion stems from the instructors' and the students' unfamiliarity with the ethical considerations and aspects of what is being taught. For example, just ask any introductory finance class about usury and the typical response is a roomful of blank stares. Few students admit to having ever even heard the term "usury" before, and usually those who have heard the word have no idea what it means. Yet, time value of money, which is the most all consuming and pervasive topic in finance, is inextricably linked to usury and its ethical implications. This is especially true when time value of money is related to its most frequent real world application and representation in interest rates. The debate concerning the legitimacy of charging interest on loans has gone on for millennia. We just don't hear about it (Stuhldreher & Ulrich, 1989).

The Meaning of Usury

In today's world, depending on which side of the transaction we happen to be, we all expect to either earn or pay interest on money loans. Interest, as the most obvious real-world manifestation of the time value of money, has been accepted as an unavoidable fact of life. Usury, then, is the charging of exorbitant or unlawfully high interest rates on loans. Usury is something loan

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sharks engage in, charging rates so high that their victims often cannot make payment. The criminal activity then compounds as the shark uses enforcers to extract payment. Usury is what Shylock was engaging in when, in Shakespeare's Merchant of Venice, he demanded a contractual agreement that, if his loan to the merchant were not repaid, it must be repaid by removing a pound of flesh from over the merchant's heart. This is why loan sharks are today referred to as "shylocks" and why setting an excessively high price for anything is referred to as "demanding a pound of flesh". So charging interest rates that are too high is unethical. From this we just accept that charging "reasonable" interest rates is ethical. But this has not always been the case. Usury once meant the charging of any amount of interest on money loans. In fact, even today in some Islamic countries, charging interest is an illegal activity because it is an immoral activity that is condemned in the Koran (The Koran, Chapter 2).

#### Thomas Aquinas on Charging Interest

Until the beginning of the Industrial Revolution, Western moral philosophy was equally vigorous in its condemnation of charging interest on loans. Preeminent among the moral philosophers who presented a systematic treatment of the immorality of charging interest was Thomas Aquinas. His explication is presented in the *Summa Theologica* which was written in the 13th century.

Aquinas approaches the subject using the medieval scholastic method in which a question is posed and various answers to the question dismissed through argumentation until only one answer remains. The question posed is: "Whether it is a sin to take usury for money loans?" (Aquinas, *Summa Theologica*, Part 2, Section 2, Question 78, Article 1). The Latin term used by Aquinas is *usura* and literally means "the price for the use of something". In this context what Aquinas means by usury is the price that is charged for the use of money when it is loaned, which we call "interest". His answer to the question is simple and unambiguous - charging interest on a loan is a sin against justice. Why is it unjust? Because he who charges interest is, in effect, selling something that does not exist.

In order to support his contention that charging interest is sinful, Aquinas introduces the distinction between consumption and non-consumption goods. A non-consumption good is something the use of which does not result in its destruction. A house is a good example of this kind of thing. When a house is used either by its owner or a renter, this use typically does not end with the house being unable to be used again. Since the house is not destroyed by its use, the house itself and the use of the house are actually two different things. Because of this, the owner of the house can charge rent for its use (*usura*) while at the same time retaining ownership of it. Consequently, charging a fee for the use of things like this (where the thing and its use are separable) is not unjust and, therefore, not sinful.

Other types of things, however, are destroyed when they are used. That is, when they are used they cease to exist. Regarding these types of things, the use of them cannot be considered as being separate from the things themselves. We

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call these types of things consumption goods. When someone uses wine he drinks it and it ceases to exist as wine. The wine has been destroyed by being used. Thus, if one charged a price for a glass of wine and then tried to impose another charge to use the glass of wine he would be committing a sin of injustice. Why? Because the wine and its use cannot be considered separate things like a house and its use can. When one loans someone else a glass of wine it is expected that the wine will be consumed and so all one has the right to expect in recompense is another glass of wine or something deemed equivalent to it. Therefore, to loan something like this is the same as to sell it and, once sold, you cannot also exact a fee for it being used.

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To explain where money fits into this scheme Aquinas turns to Aristotle and his treatment of money in the Nichomachean Ethics and his Politics. According to Aristotle money is one of those things the use of which necessarily entails its destruction. As a strictly human invention, money was designed to facilitate the exchange of goods (Aristotle, Nichomachean Ethics, Book 5, Chapter 5). Simply put, wine is made to be drunk and money to be spent. The use of money is the spending of it and, therefore, to lend money to someone is to expect him to spend it. When the money is returned, if you expect more than the amount loaned because the borrower used the money, you would be charging for both the money and its use. To Aristotle and Aquinas, this is clearly unjust because money cannot be considered a thing separate from its use (Aristotle, Politics, Book 1, Chapter 10).

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Thomas Aquinas presents a very uncompromising argument that charging interest on loans is *de facto* immoral. His position is one which was accepted for the most part from the time of Aristotle (c. 600 B.C.) until the full flowering of the Industrial Revolution in the 18th century. Why, after more than 2300 years, did our attitude toward paying interest change so dramatically? Obviously our attitude has changed because the world of business and commerce has changed and, with it, our understanding of the role of money.

#### Aquinas and Opportunity Costs

Writing in the 13th century about the morality of charging interest, Aquinas could not have foreseen the complex nature of the modern banking industry. In condemning the charging of interest, Aquinas presumes that the money being loaned comes from a cache that is lying around unused in the coffers of some wealthy man. The fact that it is not being used implies that the lender incurs no loss in allowing someone else to use it. Aquinas allows that it is moral to charge for the use of money only if the lender incurs a loss as a result. In that case, the lender has a right to expect compensation for the loss but only in the amount of the loss (Aquinas, Summa Theologica, Part 2, Section 2, Question 78, Article 2). But the money loaned by modern banks is not lying around unused. Aquinas could not have known that, beyond being merely a medium of exchange, the purpose of money would expand to include our understanding of money as capital. Things like livestock and land were capital to Aristotle and Aquinas. Now money is also capital.

To Aquinas, a recompensable loss on a loan had to be a *real* loss incurred by a lender because his money was not available for his use. For example, The truck that a farmer uses to deliver his produce to market breaks down after the farmer has loaned his money to someone. The produce rots and he has incurred a real loss because he did not have the money needed to repair his truck. In this case Aquinas would agree that the farmer has a right to expect the borrower to repay the money loan and also to compensate him for his loss. Today, as justification for time value of money, we consider economic opportunity costs as real costs that require compensation. What do we lose when we lend our money? We lose the ability to use that money in the present for consumption. We also lose our ability to use that money to pursue any more lucrative investment that comes along before the loan is repaid. In addition, we incur something distinctly negative that we do not have to bear until the loan is made, and that is, we may never get the money back. These costs, which we see as real, Aquinas sees as only potential and, as such, not morally recompensable. To charge for money you might have made, or for not being able to use the money as you might have used it, is not morally acceptable because you are selling something that you do not possess yet and which you may never possess (Aquinas, *Summa Theologica*, Part 2, Section 2, Question 78, Article 2). This may seem like hairsplitting but Aquinas is making an even broader moral point. Charging interest on loans subjects the lender to the temptation of seeking wealth for its own sake without limits. Clearly someone thus engaged cannot lead a moral life since moral living requires avoiding the extremes (*Virtus stat in medias res*) (Aristotle, *Nicomachean Ethics*, Book 2, Chapter 6).

#### Conclusion: A Suggestion for Classroom Use

To deny that money has time value is to negate the necessary foundation of the field of finance. Without its legitimacy, teaching finance could actually be construed to be immoral and certainly pursuing finance as a career would be to engage in an immoral enterprise. Indeed, to even consider this possibility would make finance professors and professionals very uncomfortable. Maybe, even more than ignorance, that is the reason why the question about the morality of time value of money seems never to be brought up. Professors present time value of money as a fact without ever bringing up the question of its moral legitimacy. Is time value of money, as represented in the charging of interest, ethical? We do ourselves and our students no favors when we ignore the question. This is especially true when there really are two sides to the debate.

To bring this discussion into the classroom, I would suggest an approach which I have used each time I teach an introductory course in finance. It seems best to begin with a discussion of usury as it is defined today. Why is it illegal or immoral to charge an excessive amount of interest and what is meant by "excessive"? Since there usually is wide disagreement expressed about what constitutes an excessive amount of interest, the instructor can then readily lead the discussion to consideration of the morality of charging any interest on loans.

At this juncture it is useful to point out to the students that our modern definition of usury has only been accepted for the past two or three centuries and that it was defined quite differently before that. I believe that it is very helpful to actually read to the class from the *Summa Theologica*, Question 78, Article 1. Before doing so, however, the class should be alerted to listen to how, in his argument, Aquinas distinguishes between types of goods, and into which category he says that money fits. It is important for students to understand that it is the equation of money with consumption goods that serves as Aquinas' basis for his condemnation of charging interest. This should next lead to an exposition of how our modern conception of what money is has expanded to include the notion of money as capital. In the end, this discussion provides an ideal context for introducing those opportunity costs which serve as justification of our accepting that money has time value and that charging interest is indeed both moral and necessary.

Obviously, this approach to introducing time value of money concepts will be more time consuming. It probably will not make the student more proficient in manipulating the mathematics. However, it will help to better understand why the mathematics exists and is important. It may even make the math less intimidating. But most importantly, it will make clear to the student that business activities do involve important moral questions which must be asked and answered.

Do ancient writers like Aristotle and Aquinas say anything useful or interesting in answer to such questions? Try asking the question in class some day and you may be pleasantly surprised.

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**EMPLOYER EXPECTATIONS OF COLLEGE OF BUSINESS GRADUATES**

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**ABSTRACT**

*A survey among employers of College of Business graduates indicated computer skills expectations and proficiency levels as well as non-technical qualities required for hiring decisions. Employers expect low- to medium-level computing competencies in major software packages; however, expectations vary by professional field. Results suggested that employers are generally satisfied with computer competencies but not with interpersonal, personal, academic, or background qualities. In particular, oral communication and leadership skills were called for in the interpersonal qualities area; good work ethics, enthusiasm, and professionalism, in the personal qualities category; high GPA and extra-curricular activities, in the academic qualities area; and work experience in the professional field in which the graduate wishes to work. Employers asked instructors to emphasize communication training, develop students' social skills, increase awareness of business ethics, and help students practice business etiquette and professionalism. Employers encouraged students to complete an internship experience prior to applying for a position.*

**INTRODUCTION**

The job market for entry-level, management-track employees is tight. Employers continue to be increasingly critical and selective in their hiring choices. More than ever, recruiters are under pressure to hire only the best and the brightest (Cook & Finch, 1994). Consequently, hiring the right person requires employers to be particularly concerned with the skills of potential employees, as well as the selection process by which the best candidates are identified.

Research on employer demand for skills is, however, split over the issue of whether technological change has increased or decreased the demand for specific computing skills as a hiring criteria. One argument is that technology is changing so rapidly that specific skills are quickly outdated. Keeping pace is an increasingly illusive pursuit. Accordingly, companies are searching beyond

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specific task and computing skills and are looking for applicants with behavioral skills and personality traits which fit a particular job (Profit Building Strategies for Business Owners, June 1992). On the other hand, because of the increasing importance of computer applications in the work place, specific computing and software application skills possessed by applicants are expected to match those used by the firm.

The literature presents an unclear picture about employer expectations in various professional areas. Because only selected areas of the job market have been surveyed, the question remains: What do today's employers expect of entry-level, management-track applicants holding a Bachelor of Science degree?

The purpose of the present study was to assess employer skill expectations for entry-level, management-track employees who have completed a Bachelor of Science degree in business areas other than computer specialties. Because of the rapid pace of technological change and a meaner, leaner work environment, an understanding of current employer expectations is important to college professors who teach and counsel students, to students who plan careers and later enter the job markets, and to employers who seek the best and brightest applicants.

Hard skills referred to in this study are task-oriented and technology-focused skills which include an understanding of computing as well as computer applications. Soft skills are those which are behaviorally and interpersonally focused and include motivation, commitment, leadership, communication, analytical, critical-thinking, and decision-making skills which relate to effective planning, organizing, and implementing resources.

#### LITERATURE REVIEW

The literature reviewed for this study focused on companies doing business in the United States and hiring recent college graduates with a Bachelor of Science degree in Business Administration.

Both government and non-government agencies have been instrumental in gathering information which identifies skills that employers should minimally expect of professionally trained job applicants. In turn, this information was expected to guide educators in providing the education and training to adequately prepare America's future workforce for success in a competitive, quality-driven work environment. Among the government agencies gathering information are a) The United States Secretary of Labor Commission on Achieving Necessary Skills (SCANS) (1991); b) the Florida Employer Opinion Survey Annual Report Series (1988), an on-going, annual survey among Florida employers; and c) the North Central Indiana Workforce Literacy Task Force (1992). SCANS resulted in a complex mix of hard and soft skills as well as traditional basics, with an overall emphasis on hard skills. The Florida Employer Opinion Survey showed a preference among employers for soft skills as primary hiring criteria. Likewise, the North Central Indiana Workforce study found a preference among employers for soft skills, particularly decision-making abilities and efficient use of resources.

Non-government agencies have also been instrumental in gathering information about employer expectations and entry-level, professional-track hiring criteria. Cook and Finch (1994), an accounting firm, surveyed 509 businesses and identified four general skills pertinent as hiring criteria for the accounting field: effective interviewing skills, work experience, academic performance (grade point average), and training potential. Three of the four general skills are soft, rather than hard, skills.

Kleinman (1987), a vice president and manager of personnel in the banking industry, provided qualitative data collected from observations, experiences, and conversations among various employers. Specifically, ten attributes and skills were named that successful employees possess: the ability to use information, interpersonal skills, marketing skills, change experience, time management, ability to be a team player, knowing when to act and when to respond, personal accountability, and computer literacy. These attributes and skills share common themes of maturity, independence, and perspective; and all except computer literacy represent soft skills.

The Ramsey (1994) report, based on 35 years of the author's experience, stated that all skills critical to success on the job are soft, non-technical skills and include the ability to work effectively with all types of people, willingness to give 110 percent, enthusiasm, commitment, initiative, communication, eagerness and potential to learn, and problem solving.

The Ray, Stallard, and Hunt (1994) survey, included 390 businesses which, collectively, indicated a preference for non-technical skills, particularly communication skills.

Although the five previously discussed, non-government studies indicate a preference for soft skills, at least two studies present contrary evidence. Sheetz (1992), and Vasu and Frazier (1989) identified specific technical and task skills as primary hiring criteria. Sheetz surveyed 504 Michigan State businesses, and Vasu and Frazier collected data from 1,150 North Carolina employers. Both surveys revealed a strong preference among employers for technical and computing skills such as basic software application skills which match employer technology. Additionally, based on their data Vasu and Frazier clearly predict an increase in emphasis on technical and computing skills as primary hiring criteria for future professional-track, entry-level employees with a Bachelor of Science degree.

In summary, whether a particular corporation places emphasis on soft or on hard skills as hiring criteria is not clear in the literature. Possibly, hiring criteria may vary by professional field, industry type, management orientation, geographic area, or by some other criteria. The literature does not address this issue.



### METHODOLOGY

The present study was launched as a pilot study due to the sample selection and geographic limitations. The population for the study was potentially all employers of College of Business graduates who have completed a Bachelor of Science degree in Business Administration with a specialization other than computer technology. Employers of computer specialty graduates (such as computer information systems or office systems) were excluded because such employers would require more intensive and in-depth technical knowledge. The data would, therefore, be skewed accordingly.

Recent employers of graduates from Southwest Missouri State University College of Business Administration (76 firms) and of graduates from Indiana University of Pennsylvania Eberly College of Business (70 firms) were surveyed. Names and addresses of firms were obtained from the university Career Services Offices, which routinely collect data on college graduates' employment.

Employers were categorized by information they supplied on the completed survey form which asked "Which of the following classification best describes your company?" Categorical choices included accounting, finance, management, marketing, and other. Participating employers represented a cross-section of business types and sizes, including non-profit, health care, education, partnerships, manufacturing, and utility companies. Firm sizes ranged from 2 employees to over 3,000 employees.

Surveys included a postage-paid, return envelope which was coded so as to identify the participant in case of needed follow up. Follow-up mailings were completed three weeks after the initial mailings. Overall response rate was 36 percent (52 surveys returned) and all but two surveys were usable.

The survey included a mix of items covering technical and computing (hard) skills as well human-relation and personal qualities (soft) skills. The survey included a combination of check boxes, scales (1 to 5) for indicating expected skills and proficiency levels, weighted lists for most to least desired hiring criteria, and open-ended questions regarding criteria used for hiring decisions, as well as for making suggestions for better preparing business graduates for the work force. Multiple category responses were possible and expected for some items.

### RESULTS

Responses were tallied and descriptive statistics were calculated in order to provide an answer to the research question:

What do employers expect for entry-level, professional-track employees who have completed a Bachelor of Science degree in a Business Administration major other than a computer specialty?

Item 1 asked, "Which type of College of Business major are you most likely

to hire for your entry-level professional positions? As Table 1 indicates, the most frequently hired major is accounting (26.7% of overall choices for hiring), and the least frequently hired major is international business (1.9% of overall choices for hiring). Employers tended to hire a greater percentage of graduates of their own professional area, but each employer type hired majors of other areas as well. The "other" category in Table 1 captured respondent-supplied majors including economics, industrial technology, sales, agribusiness/agriculture, communications, and general business.

Items 2 through 7 focused on computing and technical skills (hard skills). Item 2 asked, "Which of the following computer applications skills do you expect College of Business graduates to possess in order to qualify for your company's entry-level professional position?" A scale for level of proficiency expected was provided for each software type (1, "aware of", to 5, "expert in"). Table 2 presents the software choices (Software) and expected mean levels of proficiency (Prof.).

As Table 2 illustrates, overall, employers most frequently expected graduates to possess skills in Word (16.4% of all employers), Excel (16.4%), WordPerfect (13.4%), and Lotus (12.4%). PowerPoint (11.9% of all employers) and Access (10.0%) were also frequent expectations. Employers expected the highest proficiency in Excel (3.1) and Other (3.5), which included field specific programs such as Peach Tree or ATB for the accounting field. Accounting and Management employers expected the relatively highest levels of proficiency for Lotus or Excel spreadsheet applications, while Marketing expected the highest proficiency of any other category for Harvard Graphics applications (4.5). Statements supplied by respondents in the "Comments" section of Item 2 indicated only the need for basic computer literacy (rather than specific computer applications skills) and an ability to learn or adapt quickly.

Item 3 asked, "Which of the following hardware skills or knowledge do you expect entry-level, professional employees to possess?" Among the respondents who answered this item (44%), 68.2% expect LAN knowledge; 13.6% expect systems configuration knowledge, 9.1% expect hardware repair skills, and 9.1% expect special applications skills specific to the business. However, 56% (28) respondents indicated "none" or left this item blank.

Item 4 asked, "Which of the following network application skills or knowledge do you expect your entry-level, professional employees to possess?" Electronic mail was indicated by 52.6% of the respondents, groupware/network by 17.5%, and "none" by 29.8%.

Item 5 asked, "Which of the following commercial network services does your company use?" Table 3 shows that, overall, NetScape is the most frequently used (27.8% of all uses) while Prodigy is the least frequently used (3.7% of all uses). However, 29.7% of employers do not use any commercial network service.

Item 6 asked respondents to list the two most important computer skills, knowledge, or attitudes necessary for College of Business graduates to become

productive as quickly as possible in the company. Survey respondents were expected to focus on computer skills and knowledge, but they listed both computer-oriented and non-computer criteria. Finance and marketing employers provided the greatest number of entries for computer-oriented skills and knowledge, including language (COBOL), statistical packages, DOS, UNIX, mainframe knowledge, and keyboarding skills, as well as the popular word processing and spreadsheet applications. Also included in their response were abilities to merge job functions with technology applications and a desire among graduates to learn new programs and functions. Employers in the accounting field provided the fewest number of computer-oriented items, listing general computing knowledge or field-specific computing knowledge such as ATB or Peach Tree. Soft skill entries for Item 6 were provided by respondents of each employer category and included communication skills (written and presentational), ability to learn quickly, ability to think logically, humility, and flexibility.

Item 7 asked, "Do you anticipate that your computer skills and knowledge requirements for entry level positions will change over the next year?" Responses indicated that 58% expect the requirements to change, and 56% expect requirements to increase. Thirty-two percent of the respondents indicated no increase expected, while 10% checked "don't know."

Item 8 asked, "Approximately how many new College of Business graduates does your firm hire each year?" Data were divided into four categories, as illustrated in Table 4. Results showed that 57.8% of the responding employers will hire between 1 and 10 new College of Business graduates each year; 17.8%, between 11 and 20; 11.1%, between 21 and 50; and 13.3%, over 50 new graduates.

Item 13 asked respondents to list the four most important criteria used to make the hiring decision. Respondents provided a wealth of criteria, which was subsequently categorized along two dimensions and four subcategories: a) hard skills--computer skills and computer-related knowledge, and b) soft skills which includes four sub-categories of relational qualities, personal qualities, academic qualities, and background strengths.

Results for Item 13 showed that relatively little attention by respondents was given to hard skills. Management and accounting employers listed nothing in this category. On the other hand, communication in the soft skills category (written, oral, group, and leadership) was among the criteria listed by every employer group and almost every employer.

Personal qualities considered to be important for hiring decisions highlighted good work ethics, enthusiasm, motivation, intelligence, and professionalism. Academic qualities included QPA by 20% of the firms, as well as type of degree and student organization involvement or extracurricular activities. Background strengths showed an emphasis on work experience, especially in the professional field, and proven success. Respondents' recommended internships as an important means for acquiring the professional-area experience they desire.

Item 14 asked, "What would you suggest colleges and universities do to better prepare students for the entry-level positions of your firm for which College of Business graduates are hired?" Survey results suggested three categories of action: a) changes in course content and teaching, b) changes in student experiences outside the classroom, and c) actions the teacher should take outside the classroom. Changes in the course content and teaching included increased training and emphasis on

- \* communication skills (speaking, writing, leadership, group work and Teaming skills)
- \* personal grooming
- \* social skill development
- \* business ethics
- \* professionalism and etiquette

Only six respondents suggested more computer training, three of which were requests to teach students efficient keyboarding skills. The primary suggestion for students outside of the classroom, made by all employer categories, was to complete an internship or a cooperative work experience. Some employers felt an internship should be mandatory. Suggestions for teachers, other than classroom teaching, was to gain business experience outside the academic world, stay aware of business needs, and make long-term links with the business community.

In summary, survey results indicated that employers' expectations cover a wide range of hard and soft skills for entry-level, professional-track employees entering the job market with a Bachelor of Science degree, other than a specialty in computers. According to the data, candidates must possess a low to average level of computing skills in popular word processing, spread sheet, data base, and presentation applications. Acceptable candidates, however, must possess an even wider range of relational, personal, and background qualities.

#### DISCUSSION

Results were expected to clarify the preferences among employers for either hard skills or soft skills (or some combination) as hiring criteria. Although most professional fields acknowledged computer applications skills or computer literacy as a hiring criteria, all employers indicated an emphasis on soft skills, particularly those which are communication and interpersonal skills related. The fields of accounting and management were the only two fields where computer skills were not listed among the four most important hiring criteria.

These results are consistent with previous findings (Florida, 1993; Cook & Finch, 1994; Kleinman, 1987) and in particular agree with the Ramsey (1994) and with the Ray, Stallard, and Hunt (1994) studies. These studies indicated a strong preference among employers for soft skills in the areas of communication. Taken as a whole, this line of research indicates that a trend among employers exists toward soft-skill strengths as primary hiring criteria. The implications are that educators may need to place greater emphasis on business presentation and writing skills, collaborative work and teaming skills, and business ethics

and professionalism. These topics could be interwoven throughout the curriculum and courses which lead to the Bachelor of Science degree in Business Administration.

Educators may be doing a satisfactory job when preparing students with hard skill proficiencies, if a lack of statements or complaints is indicative of employer satisfaction. Results were expected to show a greater emphasis and a higher level of proficiency for software applications skills among job candidates. Instead, employers expect only low to moderate levels of proficiency and did not indicate that job candidates were unprepared in their technical skills areas. Perhaps a need satisfaction hierarchy, similar to Maslow's Hierarchy, is in effect here. When a level of needs is satisfied, the needs do not occupy immediate attention and pursuit. Rather, another area of unfulfilled needs becomes dominant; and in the present case, those needs are soft skills among job candidates. The apparent satisfaction with applications (hard) skills was one of several outcomes relevant to college professors, students, and employers.

A second finding was that although employers of each category tend to match professional academic preparation with their professional field, accounting majors overall are the most likely to be hired. A supply and demand principle may be at work here, since the largest proportion of graduates from the Colleges of Business included in this survey were accounting majors. In fact, the most to least likely to be hired roughly follows the proportions of graduates by major area.

A third finding was that contrary to the belief of educators, nearly one third of employers are not using the most current versions of technology. Employers were asked to supply the software versions currently in use at their workplaces. WordPerfect 4.2 and Word Star continue to be used in some work places. Consequently, students need flexibility and good skill transfer qualities in order to meet the requirements of some jobs.

A fourth finding was the employer expectation and need for LAN knowledge (68.2% of employers) and systems configuration knowledge (13.6%). These are areas not covered in depth at either College of Business included in the study. Students will need these topics added to their academic training.

An important outcome of the study was learning of the emphasis that employers place on internships or cooperative learning experiences as well as the suggestions offered to educators to better prepare students for the work place. Developing or strengthening links between college professors and the business community may serve to develop additional internship opportunities for students as well as keep the colleges more informed of employer expectations and concerns.

Caution must be taken in generalizing these findings because of the nature of the pilot study and its selective sampling process. Future research should use random sampling among employers of College of Business graduates in broad geographic areas. Additionally, future studies should be conducted periodically

to identify and track trends in employer expectations and needs.

Additional information which would be useful to educators and students would include questions about a) employer satisfaction with employee performance after specified time intervals on the job, b) how much on-the-job-training or education was required before the new employee became productive, and c) whether or not this training or education should be incorporated within the academic experience.

#### CONCLUSION

In conclusion, employers appear satisfied with software and Internet skills of their entry-level, professional-track employees who enter the work force with a Bachelor of Science degree in areas other than a computer specialty. Employers are not, however, satisfied with interpersonal, personal, academic, or background qualities. In particular, communication and relational skills are targeted as weaknesses among College of Business graduates. Educators and students must give more attention to fulfilling employer needs in these areas. Students must also give serious consideration to completing an internship or cooperative work experience prior to entering the work force, and educators must work to maintain closer ties with the business communities.

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Table I

Most Frequently Hired Majors by Employer Category  
(Expressed as Percentage of Total Selections Made by Employer Category)

Major of graduate	Employer Category					Overall
	Accounting	Finance	Management	Marketing	Other	
Accounting	42	20	22	22	25	26.7
Finance	11	27	11	19	0	17.1
International Business	4	3	0	0	0	1.9
Management	8	13	28	15	0	14.3
Marketing	8	17	17	30	0	17.1
Office Administration	15	3	11	4	0	7.6
Other	12	17	11	11	75	15.2

Table 2

Employer Expectations for Software Applications Skills

(Expressed as a Percentage of Total Employer Responses within Employer Category)

Application type	Employer Category											
	Accounting S'ware Prof.		Finance S'ware Prof.		Management S'ware Prof.		Marketing S'ware Prof.		Other S'ware Prof.		Overall S'ware Prof.	
Word Processing Applications	11.7	3.0	16.2	2.5	18.0	2.3	10.6	2.2	16.7	3.0	13.4	2.7
WordPerfect	18.3	3.0	16.2	2.2	12.8	3.0	19.2	2.8	11.1	3.5	16.4	2.5
Word	1.7	1.0	-	-	2.6	3.0	-	-	-	-	1.0	2.0
Word Star												
Spreadsheet Applications												
Lotus	10.0	3.8	16.2	2.2	15.4	3.5	8.5	2.5	16.7	3.0	12.4	2.7
Excel	16.7	3.4	10.8	3.0	17.8	4.0	21.3	2.8	11.1	2.5	16.4	3.1
Other	3.3	3.5	2.7	3.0	2.6	1.0	-	-	5.6	4.0	2.5	3.5
Presentation/Graphics Applications												
Harvard Graphics	5.0	3.0	5.4	1.0	7.7	2.0	4.3	4.5	11.1	2.5	6.0	2.5
Power Point	15.0	2.3	8.1	2.3	5.1	2.5	19.2	2.5	5.6	4	11.9	2.7
Other	-	-	-	-	2.6	1.0	2.1	-	-	-	1.0	-
Database Applications												
Access	10.0	2.33	16.2	2.0	5.1	2.5	8.5	2.8	11.1	2.5	10.0	2.3
DBase	6.7	2.5	2.7	3.0	10.3	2.3	6.4	3.0	5.6	4.0	6.5	3.0
Other	1.7	1.0	-	-	-	-	-	-	-	-	.5	0
Other Applications	1.7	1.0	-	-	-	-	-	-	-	-	.5	-

## Notes:

Software (S'ware) is expressed as a percentage of overall choices made by respondents within the employer category.

Mean expected proficiency level (Prof) represents respondent feedback for the employer category.

Dashes indicate the absence of respondent rating or information.



Table 3

Commercial Network Service Used by Employers

(Expressed as Percentage of Overall Selections Made by Employer Category)

Network service type	Employer Category					Overall
	Accounting	Finance	Management	Marketing	Other	
America on Line	7.1	-	18.2	33.3	14.3	14.8
CompuServe	14.3	10.0	18.2	-	14.3	11.1
Microsoft Internet Explorer	7.1	10.0	-	-	28.6	7.4
Mosaic	14.3	-	-	18.3	-	5.6
NetScape	28.6	20.0	9.1	41.7	42.9	27.8
Prodigy	-	-	18.2	-	-	3.7
None	28.6	60.0	36.4	16.7	-	29.7

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## NATIONAL INSTITUTE OF MANAGEMENT: THE BELIZE EXPERIENCE

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and

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Indiana University of Pennsylvania

### ABSTRACT

*Belize is unique as a developing country because of its sparse population, abundant natural resources, and absence of despair among its populace. However, these advantages are counterbalanced by major challenges of low literacy, lack of business competitiveness in the global market, and poor work ethics. To help meet some of the country's challenges, Belize business people obtained USAID funding to develop the Belize Institute of Management. The Institute has become the country's leading center for business training and consulting, yet overall progress toward business productivity and efficiency has been low. Based on the authors' work in Belize and interviews with leaders of the Belize Institute of Management, several recommendations are made. These recommendations will further strengthen as well as expand the institute's services so as to further resolve the country's major business challenges.*

### INTRODUCTION

Belize is a small beautiful country in Central America that has been increasing its reputation as a tourist destination. The country has beautiful beaches, advanced ecology initiatives, mysterious Mayan ruins and world-class scuba sites. (Belize has the world's second largest barrier reef). However, the idyllic world that the tourist experiences hides a developing country that faces challenges and opportunities that are both shared and unique with the rest of the developing world.

There are several factors that make Belize different from other countries in the developing world. First, it is generally under populated and has a great amount of open space. The total population is under 250,000 people and most of these are in the three or four urban centers. Land is inexpensive, easy to obtain, and the government encourages development. A second factor is that the country has a solid agricultural base with abundant supplies of food. The population is well fed and the diet is sufficient for well being. A third factor

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Overall

14.8

11.1

7.4

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is that the country is politically stable and has a low crime rate. The sum of these factors have created an atmosphere of well being and safety for the Belize citizen. The populace has a sense of upbeat optimism with an almost total absence of the desperation and despair that is common in so much of the developing world. Belizeans have a general sense that their country is on the rise and that better days are ahead.

#### CHALLENGES BELIZE MUST FACE

The advantages of well being and safety experienced by the Belizeans are somewhat counterbalanced by several major problems which Belize must face if it is to continue to be a viable nation. First and foremost is a low literacy rate of only 50-60% (Culturgram, 1994: Belize, 1994). This low rate causes difficulties for employers in their search for an educated and technologically literate workforce. Many rural students drop out of school in order to go to work and help their families. The lack of adult literacy limits business in what it is able to do and hinders the upward mobility for the residents of Belize (Dudt & Brandenburg, 1996).

The business community in Belize is also uneasy and suspicious of the country's ability to compete in the world market. Generally, there is little understanding of the new world trade agreements (NAFTA, GATT) and how these agreements will effect the economy. Indeed, some business leaders have expressed concern that world competition will erode the prosperity that Belize currently enjoys and that the country is too small and too poor to compete at the international level. New trade agreement language following NAFTA and GATT, new regulations and instructions, as well as issues of marketing and pricing in the international market all add to the increased risk and reduced profit these leaders foresee. There is also no national cohesive planning that incorporates governmental and business initiatives to address the changing global markets. This lack of planning has isolated the small business person and entrepreneur and has left them without guidance on how to participate and position themselves for the opportunities of the world marketplace.

A final challenge that faces Belize is the poor work ethic of the populace. Belize is a former British colony (British Honduras) that has been somewhat sheltered by the crown and is unprepared for the level of competition needed to be competitive internationally. Reynaldo Guerrero, Director of the Belize Institute of Management, has stated the country is comfortable parading at 35 MPH on a 75 MPH highway. The people are uncomfortable with continual hard work, high stress, or long hours. The culture and business community continue to move at a sleepy pace (R. Guerrero, personal communication, August, 1996).

#### MEETING THE CHALLENGES

The question of how Belize is to meet its challenges and to develop both socially and economically has been a difficult one. In 1987, a group of Belizean business people worked with the United States Agency for International Development (USAID) to fund and develop the Belize Institute of Management. The

Institute was to continuously strive to increase efficiency and productivity through the development of entrepreneurship, leadership, competence and ethical practices in business and management (Business Institute of Management, Meeting the Challenge, 1995). The Institute has, in the past, experienced some difficulties due to frequent changes of managing directors but has been able to stabilize with the appointment of Reynaldo Guerrero in 1993. Guerrero has continued to develop the Institute's programs, and he has been able to reach 700 and 1,000 people per year in a variety of business seminars.

The Belize Institute of Management offers programs that develop skills for people at all levels in an organization. Examples of some of the topics are as follows:

- \*Communications Skills (oral and written)
- \*Office Management
- \*Computer Skills
- \*Sales
- \*Customer Service
- \*Supervision Techniques
- \*Accounting
- \*Management
- \*Public Relations
- \*Team Building

The Belize Institute of Management programming has proven effective and this can be measured in several ways. First, there is a high percentage of people that look to the Belize Institute of Management for ongoing training. The Belize Institute of Management frequently has people that have taken three or four seminars over several years. Another indication of respect is that businesses are continually willing to make funds available to pay the fees for their employees in order that they may attend the seminars. Certainly, one of the factors that leads to the repeat business is the lack of competition from other training alternatives, but it is clear that the Belize Institute of Management is respected throughout the country. The Belize Institute of Management's educated, forward thinking business leaders have clearly had an impact and have helped create a positive business climate, as evidenced by the favorable national reputation of the Institute and the steady stream of requests for its business consulting and training services.

The facilities at the Belize Institute of Management are excellent. The facilities include a first-rate location in Belize City that is next to the University College of Belize (UCB). The UCB is an undergraduate college that is state funded and has struggled to be accepted as a first-rate institution. However, the location provides the Belize Institute of Management and university the opportunity to share resources and to develop national initiatives. The Belize Institute of Management's facilities are air conditioned, comfortable, technologically equipped with presentation media and include an updated computer lab. The Belize Institute of Management has excellent human resources as both in-country consultants and American counterparts are used in providing seminars.

To insure that the topics the Belize Institute of Management offers are needed and valid, the Institute works with companies to develop the seminars. The Belize Institute of Management offers such on-site services as training analysis, program development, materials design and development and program evaluation. This developmental methodology has the effect of personalizing the program and seminars to the clients' individual needs.

#### RECOMMENDATIONS

Twenty years of success has brought the Belize Institute of Management to the proverbial a fork in the road. The seminar topics are increasingly drawing lower numbers which has created problems in covering the overhead of the Institute. The low numbers are not indicative of poor quality seminars, but the topics have become repetitive in nature. This lack of new and exciting ideas for programming has created a problem of increasing magnitude for the Belize Institute of Management. The biggest concern is that the Institute is not addressing some of the most serious needs facing the Belize business community; namely, literacy, international competitiveness, and work ethics. The following are recommendations for initiatives that the Belize Institute of Management should consider. Each of these recommendations would create new markets for the Institute and would satisfy an existing need that is of significant nature.

1. The Belize Institute of Management should consider continuing education and certification programs to encourage literacy, professional development, and the improvement of work ethics. Continuing education could be designed to improve basic education as well as to maintain certifications and professional standards. Certification programs could be in such areas as Hotel/Restaurant Management, Tourism, Finance, Sales, Secretarial, and Accounting. These topics would allow the Institute to offer more in-depth study. The certificate might also be significant to the people taking the courses as it would suggest a systematic study that gives competencies in a variety of issues and topics in each field. The certificate curriculum could be established to consider the unique and individualistic needs of the Belize business community.
2. The Belize Institute of Management should offer programs which go beyond the functional skills emphasized in current programs. Programs which might prove useful include business and government relationships, international business themes, the role of economic development, industry specific topics such as agriculture or tourism, and entrepreneurship and small business development.
3. The Belize Institute of Management should develop an Executive Master of Business Administration (EMBA) degree that is granted by the Belize Institute of Management and sanctioned by the Belize Secretary of Education. This initiative would support advanced education and professional growth.

The EMBA should be designed as a complete program, focused on international competitiveness, to serve the needs of experienced managers and professionals from both private and public businesses. The program could be modeled after

EMBA programs offered in the United States which allow participants to earn an MBA without interrupting their careers.

At the present, there is no graduate education in Belize. The country loses young bright men and women to other countries in their pursuit of advanced degrees (K. McField, personal communication, March 1996 & August 1996; R. Guerrero, personal communication, August 1996). The opportunities in Belize are vast, but highly skilled managers are in short supply. Alone, or in collaboration with a respected foreign university, the Institute could offer a first-rate EMBA program. Money would be needed to be obtained for resources (library, faculty, and equipment). However, the advantage to the country seems to outweigh the costs. Certainly, the degree should be in partnership with the federal government in Belmopan. The rationale for this effort would be as businesses became more successful, tax revenues would increase. It seems more than likely that the degree would pay for itself in the long run.

4. The Belize Institute of Management should help businesses do marketing research and advertising in order to improve national and international business competitiveness. Expertly administered, systematic and objective marketing research processes would generate useful information for informed marketing decision making. Belize presently lacks a specific, serious effort to generate information which would unveil business opportunities or address international business challenges.

Currently there is not a full-service advertising agency in Belize. A business is not able to target its advertisement to specific audiences. There is not a general understanding by the business community of using advertising appeals and how to direct the appeals to a specific audience. These problems could be addressed if the Belize Institute of Management helped companies do marketing and advertising research and assist in implementing resulting programs.

5. The Belize Institute of Management should position itself to be a centralized place where business issues problems are considered and problems are solved.

In a country as small as Belize, it would be advantageous to have periodic conferences with the business community and relevant government officials to consider how to solve problems that are common to all businesses. These sessions could also offer suggestions on how businesses could proceed with opportunities. It is currently difficult for Belizean business people to share information and to see how others are solving problems that they all face. One initiative that the Institute could consider would be to publish a journal or quarterly newspaper that is of a business nature. A second initiative that could be considered is the development of within-industry trade associations.

CONCLUSION

The Belize Institute of Management should be congratulated for its twenty years of success in providing leadership to the Belize business community. It has offered opportunity to individuals, hope to the country and played a significant role in helping Belize maintain an atmosphere of promise for the future. Its recommended and expanded role will only enhance its prestige and role in the country's development.

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THE PSYCHOPHYSIOLOGY OF COMPULSIVE CONSUMPTION: A STATUS REPORT

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 Paul Y. Kim, Clarion University of Pennsylvania<sup>2</sup>  
 Susan Traynor, Clarion University of Pennsylvania<sup>3</sup>

ABSTRACT

*In this paper, the biological, psychological, and physiological factors which make some individuals more susceptible to becoming compulsive consumers are explored. Some of the early psychophysiological research is presented. Relevant structures in the brain, neural communication, synaptic transmission, and a model of the addiction process are illustrated. The biochemical components of compulsive consumption, specifically the monoamine family of chemical compounds, are discussed.*

INTRODUCTION

Inasmuch as some compulsive behaviors in our society--drug and alcohol addiction--have reached crisis proportions, and others--gambling, shopping, eating disorders, promiscuity, and the like--are growing in intensity, our search for cures--or, at least, controls--has encouraged the investigation of the psychological, biological and physiological underpinnings of compulsive consumption. Traditionally, addiction has been treated as an externally ingested substance abuse problem, however studies support the contention that internally produced chemicals within the brain induced by external stimuli can produce the same effect as the ingested substances (Baxter et al. 1974, Belluzzi and Stein 1977, Zuckerman 1979). With heightened concern for the control and treatment of compulsive consumption, our understanding of the psychophysiology of compulsive consumption has grown rapidly. A growing body of literature is providing evidence suggesting that individual differences in brain chemistry, specifically neurotransmitters that belong to the monoamine family of compounds--norepinephrine, dopamine, and serotonin--may play a significant role in the etiology of compulsive behaviors (Allman 1988, Clark et al. 1987, Goldstein and Goldstein 1968, Hooper 1987, Krych 1989; Levine 1990, Milkman and Shaffer 1985, Milkman and Sunderwirth 1987, Milkman and Sunderwirth 1982, Mules 1981, Norris 1985, Peele 1989, Peele 1985, Pereira 1989; Solomon and Corbit 1974, Zuckerman, 1979).

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The major purpose of this paper is to examine the current literature focusing on the psychophysiology of compulsive consumption and to report the current thinking regarding the critical neuropsychogenetic linkages which make some individuals more susceptible to becoming compulsive consumers. Moreover, psychophysiological structures and related elements in brain chemistry are described and current linkages between brain chemistry and behavior are presented to provide some insight into the physiological processes that underlie compulsive consumption.

It is anticipated that through a further understanding of the psychophysiology of compulsive consumption, more and better help can be delivered to those who suffer from any in this family of problems. Moreover, through an exploration of the current findings in psychophysiological research on compulsive consumption, consumer researchers will gain greater insight and more thorough knowledge of the neuropsychogenetic interrelationships in abnormal as well as normal consumer behavior.

**COMPULSIVE CONSUMPTION: A QUEST FOR PLEASURE OR FLIGHT FROM PAIN?**

Often compulsive behavior begins as pleasure seeking but through abusive and repetitive activity becomes compulsive or addictive behavior motivated by the knowledge that cessation of the activity will bring severe physiological and painful sensation during the withdrawal period. Therefore, converse, yet equally valid definitions of pleasure may be appropriate contingent upon the psychophysiological configuration of evidence: one might view pleasure seeking behavior as a quest for satiation, excitation, or fantastication; or as a flight from eventual physical withdrawal, or pain, whatever the case might be.

Strictly speaking, pleasantness and unpleasantness are mere words. The investigation of words, however, is a matter for the philologist. Venturing beyond semantics, one again meets with differences in perspective on the meaning of pleasure. Some philosophers have recently argued that there is no such thing as a sensation of pleasure and that, consequently, any motivational theory, such as psychological hedonism, which is formulated in terms of such a sensation is necessarily incoherent (Fuchs 1976; Puccetti 1969). Others support the notion of pleasure, but differ as to its definition (Berlyne 1971; Beebe-Center 1965; Hirschman and Holbrook 1982; Kroeber-Riel 1979; Plutchik 1980). Although various schools of thought on the theory of emotion--psychoevolutionary, psychophysiological, and psychoanalytic schools--persist, to include an acceptable discussion of all would be beyond the scope and purpose of this paper.

A major concern of the debate on the nature of pleasure is the degree to which satiated drives are biological and the degree to which these drives are mediated by the intellect--past experience, learning, and other cognitive factors (for an interesting discussion on hedonic consumption see Hirschman and Holbrook 1982). Of course, the proponents of the physiological school of thought are quick to describe the intellect in physiological terms: cognition and intelligence as a function of neocortex and dendrite development (Greenough, Black, and Wallace 1987; Sirevaag and Greenough 1987). Thus, the debate

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Most would agree, however, that pleasure--sexual, aesthetic, gustatory or otherwise--has its source in the brain (Hooper 1987; Milkman and Sunderwirth 1987; Valenstein 1973). "When we gaze at a beautiful sunset, eat a truffle, listen to Beethoven or thrill to a lover's touch, these stimuli cause brain cells to send electrical signals, carried by neurochemicals, throughout our heads," (Hooper, 1987, p. 38). Some researchers such as Norris (1985) who work closely with ill patients define "primitive pleasure" in a very physiological sense, perhaps, because they can not afford the luxury of a more ethereal perspective. Norris (1985) suggests that

Primitive pleasure is bodily pleasure mediated at the reflex level rather than aesthetic pleasure mediated by the intellect. The primitive pleasure experience is sensual, sensuous, carnal, fleshly, passionate, and physical. It may be experienced generally or in one or more organs but is experienced through the senses as ease, comfort, gladness, bodily lightness, or sensations produced by tickling. It involves feelings of tranquility, languor, melting inside, or bubbling inside. It involves feeling good, aroused, excited, ready, blissful, content, satisfied, calm, restored, peaceful, cheerful, restful, fulfilled, and delighted--maybe even awed.

Norris (1985) further points out that primitive pleasure includes several levels of intensity. Among low level or low frequency sensual pleasures are feelings of ease, comfort, goodness, security, settlement, contentment, or peace. High frequency sensual pleasures produce nervous excitement such as joy, delight, and ecstasy.

Zuckerman (1979) refers to this pleasure-seeking behavior as "sensation seeking" and his research has identified a "trait" defined by the need for varied, novel, and complex sensations and experiences and the willingness to take physical and social risks for the sake of such experience. He maintains that the "high-sensation seeker" is sensitive to his or her internal sensations and chooses external stimuli that maximize them. Unusual sensation may be produced by emotions, drugs, and physical activities such as free-fall skydiving, scuba diving, or other activities involving speed and movement beyond the ordinary range. Zuckerman (1979, p. 357) states, "Sensation seekers are generally hedonists who seek pleasurable arousal. Although they do sometimes take risks that incur some fear arousal, I do not believe that the fear arousal is the point of most of their activities. It is their incurable optimism that the risky activity will bring more pleasure than pain...."

Apparently, what begins as an Epicurean quest for pleasure creates a host of excessive behaviors among compulsive consumers--ranging from compulsive buying to promiscuity. While differences exist in the definition of compulsive consumption, there appears to be some agreement that compulsives consume not so

much to obtain utility or service from a consumed commodity as to achieve pleasure through the consumption process itself (O'Guinn and Faber 1989; Milkman and Sunderwirth 1987; Peele 1989, Zuckerman 1979). Compulsive consumers seek specific, essential human experiences from their addictive involvement. They come to depend on such an involvement from these experiences until--in the extreme--the involvement becomes destructive. Compulsions are defined as "repetitive and seemingly purposeful behaviors that are performed according to certain rules or in a stereotyped fashion" (American Psychiatric Association, 1985, p. 234). Compulsive behavior is the externalization of addictions. Krych (1989, p. 745) suggests that "addictions are characterized by repetitive loss of predictable control of the addictive behavior, which results in adverse consequences for the individual, and in many cases, for the family members and friends of that individual as well."

Ostensibly, it is not enough to observe behaviors and correlate them with physiological events that occur at the same time. Identical behaviors, under different conditions, may occur for different reasons, and thus be initiated by different physiological mechanisms. This means that one must understand psychologically why a particular behavior occurs before one can understand what physiological events made it occur (Carlson 1986).

### THREE STYLES OF COMPULSIVE CONSUMPTION

The scene: Macy's, New York. An announcement comes over the loudspeaker. Silk blouses now on sale at 50% off the retail price. You feel a shiver go down the back of your neck and spine. If that does not do it for you, perhaps the purchase that creates delicious shivers down the back of your neck and spine is a set of Ping golf clubs at 40% off retail, or that 1955 Ford Thunderbird which you have always dreamed of owning, or maybe a Rolex watch. Maybe you do not experience these feelings while shopping but have had a similar experience while standing before a Monet painting, listening to Handel's Messiah, or watching your child's little league team win its first game. What you are experiencing is the sensation of dopamine or norepinephrine, natural excitatory chemicals in the brain. No dopamine or norepinephrine, no aesthetic ecstasy. Milkman and Sunderwirth (1987) contend that criminals, cocaine users, sky divers, police, lovers and compulsive buyers are motivated by a similar adrenaline rush.

High arousal activities have powerful effects in our brain chemistry. When ingesting a strong dose of cocaine or amphetamine, engaging in a large stocks and bonds transaction, or racing a car very fast in a life threatening way, one's neurotransmission is often so fast that relaxation or sleep is out of the question. O'Guinn and Faber (1989) offer important findings which distinguish the importance of emotions while purchasing and confirm the similarity of compulsive buying to other forms of addictive behavior. They state, "Arousal, excitement, enhanced perceptions of sights, sounds, and tactile sensations, and feelings of power and being liked were important factors in purchasing for compulsive buyers" (O'Guinn and Faber 1989, p. 156).

Although the above scenario describes high arousal consumption activities, not all addictive behavior is high arousal in nature. There are three primary styles of addictive behavior--satiating, excitement, and fantastification. Some addictions demonstrate only one of these styles, yet it is not uncommon to find any combination of the three styles of addictive behavior manifest in the behavior of addicted individuals.

Compulsives whose basic motivation is satiation, for example, are likely to binge on food or television watching or to use depressant drugs such as heroin. Psychologically, they are trying to shut down negative feelings by reducing stimulation from the internal and external world. The effect of satiation activities may be similar to that of opiates. The "runner's high" which is induced by the internal creation of endorphins represents a satiation activity and can become quite addictive to some people (Baxter et al. 1974, Belluzzi and Stein 1977, Milkman and Sunderwirth 1987, Zuckerman 1979).

While the satiation addicts avoid stimulation, others actively seek it. The behavior associated with the excitement mode of gratification includes fear-inducing situations, crime, gambling, risk taking, compulsive buying, and the use of stimulant drugs such as amphetamines or cocaine.

The third type of addiction uses fantasy as the preferred way of dealing with the world. Some addicts rely on this style of escapism partially to overcome their feelings of low self-esteem by creating fantasies in which they play the role of an important person. These addicts favor hallucinogens such as LSD, mushrooms containing psilocybin, or peyote. Self-induced, intoxicating phantasmagorical addictions include: sexual fantasy, fantasy role-playing games like Dungeons and Dragons, compulsive buying, gambling and addictive video game usage (Milkman and Sunderwirth 1987).

#### EARLY PSYCHOPHYSIOLOGICAL RESEARCH AND THE DISCOVERY OF PLEASURE CENTERS

In the 1950's, James Olds, an American researcher at McGill University located the brain's pleasure zone through a serendipitous discovery. Olds meant to sink an electrode into a rat's hypothalamus, then stimulate it whenever the rat went to one corner of its cage. Stimulation of the hypothalamus was presumably unpleasant, so he expected the rat to avoid that corner. Just the opposite happened; the rat showed a compulsive fondness for the corner. Olds soon discovered that, by mistake, the electrode was actually stimulating the septal region--a part of the brain today known as the "pleasure center" (Hooper, 1987; Olds, 1977). Olds and his colleague Peter Milner allowed rats to turn on the electrodes themselves. The animals soon gave up the prosaic pleasures of food, water, even sex, and chose instead to push the magic bar connected to an electrode implanted in the septal region of their brains (Olds and Milner, 1954). Some pressed the bar thousands of times around clock, until they keeled over from hunger or exhaustion. The implication was clear: The brain--not the genitals, the stomach or anything else--is the center of pleasure.

During the 1960's Robert Heath devised a controversial treatment for chronic

schizophrenics, incurable epileptics and other "hopeless" patients. Along with relieving pain and giving pleasure to his subjects, his techniques allowed him to learn which parts of the brain control which emotions (Hooper, 1987; Valenstein, 1973). He placed electrodes deep in their brains, then recorded their brain waves while they hallucinated, raged or had seizures. He also delivered mild electrical pulses to their limbic systems--the ring of structures that governs emotions, of which the septal region is a part (Heath, 1964; Hooper, 1987; Valenstein, 1973).

The 1974 discovery of enkephalins by John Hughes and Has Kosterlitz (1975) set the stage for a higher level of conceptualization regarding human compulsion. Enkephalins and related compounds called endorphins are pain-killing molecules that are produced naturally in the brain. These potent, mood-altering chemical bear striking structural similarity to opiates and appear to behave in a similar way. The realization that the brain can produce its own opiates has led to a reexamination of the biochemical mechanisms of human behavior (Baxter et al. 1974, Belluzzi and Stein 1977, Carlson 1986; Hughes et al. 1975, Zuckerman 1979)

#### THE PSYCHOPHYSIOLOGY OF COMPULSIVE CONSUMPTION

##### A model of the addiction process

Normal consumers experience excitation, satiation, and fantastication in everyday consumption behavior. It is when the behavior becomes addictive, when physiological changes take place, that it becomes abnormal and potentially dangerous. Biologically, addiction results from neuronal adaptation to repeated and salient attempts to alter "normal" levels of neurotransmission.

Goldstein and Goldstein (1968) established three phases within the addiction process--acquisition phase, maintenance phase, and depression phase: In the acquisition phase of arousal addiction, the person who thrives on becoming energized attempts to raise neurotransmission above the "normal" or baseline level. However, in the maintenance phase, the body's normal response is to counter with enzymatic changes in the brain that counter the desired rise in neurotransmission. These enzymatic changes result in the need for higher doses of activities or drugs for the person to reach the level of subjective arousal experienced at the beginning of the addictive process. Brain enzyme levels that have been gradually altered do not immediately return to normal even though the activity responsible for the changes has ceased (Milkman and Sunderwirth 1987, Solomon and Corbit 1974, Zuckerman 1979).

For this reason, the stopping of a compulsive activity appears to be followed by a subjective experience of depression or "crash." This is because enzyme levels which have slowly adapted to counter the repetitive elevation in neurotransmission and remain in this heightened state, while the activities or ingested substances which brought about this heightened enzyme level are suddenly eliminated. Similarly, activities that lower the brain's neurotransmission are countered by enzyme changes that hold neurotransmission at a normal level, and

a change in compulsive activity or cessation of ingested substances alters the chemical balance achieved during the addicted state creating this feeling of depression or "crash." This feelings of depression is actually the physiological sensation created by this new state of chemical imbalance. This hypothesis is supported by the findings of Solomon and Corbit (1974) who state that every event in life that exerts a potent effect on mood or feeling also triggers an oppositional biochemical process. Therefore, the addict must choose between attempting to maintain an acceptable level of neurotransmission by increasing sedation or excitation--by drugs or high arousal activities--or "kick" the habit. Yet cessation introduces a dramatic state of agitated discomfort, because the substance or activity responsible for lowered neurotransmission has been removed, while the powerful enzymatic changes that battled to raise the level of neurotransmission remain present. It is this dilemma which induces the compulsive individual to continue the abusive behavior. What once began as a quest for pleasure has now become a rapidly escalating treadmill to escape pain.

#### Relevant structures in the brain

Bennett (1982), suggests that compulsive behavior originates within the brain. Its fifty billion or so nerve cells, called neurons, communicate with each other through trillions of interconnections. This communication is called neurotransmission. Neurotransmission is the way in which signals or impulses are sent from one neuron to another. The primary structure within the brain involved in the control of behaviors related to motivation, learning, and emotion is called the limbic system (Bennett 1982; Carlson 1986). The limbic system is a subneocortex-level network of structures which include the hypothalamus, certain portions of the thalamus, and all of the rhinencephalic structures--septal area, the hippocampus, and the amygdala (see Figure 1). Mood shifts appear to be influenced by the limbic system. This system is associated with emotions and with sexual, feeding, and aggressive responses (Kroeber-Riel 1979).

While the limbic system appears to play a major role in pleasurable sensations connected with altered levels of arousal, the outer brain known as the cerebral cortex is an important determinant of mental content. The cerebral cortex is divided into two large convoluted areas--left hemisphere and right hemisphere--of neurons which compose 70% of the neurons in the central nervous system (Bennett 1982). The left hemisphere is primarily responsible for traditional cognitive activities relying on verbal information, symbolic representation, sequential analysis, and the ability to be conscious and report what is going on; the right hemisphere is more concerned with the pictorial, geometric, timeless, and nonverbal information (For discussion of current theory on left brain and right brain influences on consumer behavior see Fleming 1981; Myers-Levy 1989; Rothschild and Hyun 1990; Rothschild et al. 1988).

When the nervous system and its parts are described, it is usually divided for convenience into the peripheral nervous system, which consists of all the neural material found outside the brain and spinal cord, and the central nervous system, which consists of the brain and the spinal cord. Since this discussion focuses on the neurotransmission within the brain, those neurotransmitters which are directly relevant to the central nervous system will be discussed.

### Neural communication in the brain

The brain's neurons are composed of three basic parts: the soma or cell body, the axon, which carries impulses away from the soma, and the dendrites, which receive impulses from other neurons (see Figure 2). The soma, which contains the nucleus and is 5 to 100 millionths of a meter in diameter, acts as a small computer (Bennett 1982). It must decide whether to send an impulse to the axon, or remain dormant. There are no weak or strong impulses; all impulses are of the same magnitude. The intensity of the feeling is determined by the frequency of neuronal firing rather than by the strength of the electrochemical jolt (Bennett 1982; Carlson 1986).

When the soma fires, the impulse travels down the long fiber of the axon to the synapse separating the axon of one neuron from the dendrites of another neuron. Near its end, the axon branches (the branches are called terminal arborizations), and at the tip of each branch is an enlargement called a terminal button. The chemicals stored in the terminal buttons allow the neuron to interact with adjacent neurons. Adjacent neurons are not physically connected (or hard-wired); an exceedingly small space separates them. This small separation is called a synapse and is about 200, ten-billionths of a meter wide. The synapse includes the presynaptic membrane, the post synaptic membrane, and the space in between (Information always flows in the same direction in a synapse. Presynaptic refers to the side of the synapse from which information comes, and postsynaptic refers to the side where information goes). The impulse is carried across the synapse to the receiving neuron by small molecules that are released in to the synapse (see Figure 3). The molecules are known as neurotransmitters and have been described as neurojuices associated with either pain or pleasure.

### Neurotransmitter substances and synaptic transmission

It was not until the 1950s that an understanding of the nature of neurotransmitter substances began to emerge. Neurons "talk to" other neurons by means of synapses, and the medium used for these one-sided conversations is the diffusion of transmitter substance across the gap between the terminal button and the membrane of the receiving cell (Carlson 1986). About 50 transmitter substances have been identified so far and researchers think there are perhaps 200 in all (Bennett 1982; Carlson 1986; Hooper 1987). Conclusive evidence concerning transmitter substances residing in the central nervous system is much more difficult to come by than other systems, such as the peripheral nervous system, since the neurons not only are harder to get at, but they are also intermingled with neurons of other types. Moreover, there is a good deal of question about which substances are indeed transmitter agents and what their specific neuroregulatory functions are (for example, see Barchas, Akil, Elliott, Holman, and Watson 1978; Carlson 1986).

Be that as it may, considerable progress has been made in recent years in mapping the brain's distribution of some of the transmitter substances, and

research has shown that the behavioral effects of many drugs arise from their ability to alter synaptic transmission in the brain (Carlson 1986; Lukas, Brady, and Griffiths 1986; Krych 1989; Lukas and Mendelson 1988; Lukas, Mendelson and Benedikt 1986; Lukas et al. 1986a; Lukas et al 1986b). Concomitantly, the successful identification of transmitter substances and their respective agonists and antagonists--drugs which can facilitate or interfere with synaptic transmission--parallels the advances in the treatment and control of compulsive behavior disorders.

Given the plethora of transmitter substances and their myriad functions, our discussion is limited to the monoamine family of compounds--norepinephrine, dopamine, and serotonin--which are found in the central nervous system and evidence suggests play a prominent role in addictive behavior (Krych 1989, Milkman and Sunderwirth 1987, Stein 1978, Zuckerman 1979). Simply speaking, evidence suggests that the prevalence or absence of neurotransmitter substances influences the level of satiation, excitation, or fantastication which an individual experiences.

Synaptic transmission is accomplished by the extrusion of transmitter substance from terminal buttons and its acceptance by receptor sites (see Figure 4). This section will describe in more detail the biochemical processes involved in the synthesis, storage, release, and deactivation of transmitter substances. The release of neurotransmitter substance, and the recycling of the neurotransmitter substance, is a fascinating process. When the axon fires, a number of synaptic vesicles migrate to the presynaptic membrane, adhere to it, and then rupture, spilling their contents into the synaptic cleft (see Figure 4). As the brain's chemical messengers, the neurotransmitters move across the synapse and attach themselves to sites known as receptors, which are embedded in the membrane of the postsynaptic terminals of the dendrites (see Figure 4). The receptors are unique and receive only neurotransmitters that have a shape that complements that of the receptor. This relationship has been described as similar to a lock and key (Carlson 1986; Hooper 1987). If a sufficient number of receptors on the postsynaptic membrane become occupied by neurotransmitters, there is a change in the electrical balance of this membrane that results in a transfer of the impulse from the presynaptic neuron to the postsynaptic neuron, where it is combined with inputs from many other synaptic junctions, and the process repeats itself (see Figure 4).

When an impulse has been transmitted to the postsynaptic neuron, the electrical balance of that neuron must be restored before it can receive the next impulse. This balance is restored through the release of neurotransmitters from the postsynaptic receptor sites. Released neurotransmitters may be reabsorbed and safely stored in the synaptic vesicles of the presynaptic terminal, where they are protected from destruction and may be reused as needed.

However, a number of interesting things can happen to the neurotransmitters before they reach their safe hiding place of the presynaptic vesicle. If an excitatory substance is ingested (such as cocaine or amphetamine) or is produced



naturally within the brain (norepinephrine or endorphins), this tends to prevent the neurotransmitters from being recycled into the presynaptic terminal, resulting in an excess of neurotransmitters in the synapse. Since more neurotransmitters are available for attachment to receptor sites, more receptor sites will be occupied, with a resultant increase in the rate of neurotransmission and thus the state of arousal. The more rapid the neurotransmission in particular parts of the brain, the more intense the feeling of excitation. Both substances, such as cocaine, and activities, such as risk taking, fear-inducing situations, compulsive buying, gambling, and sky diving, have the ability to alter neurotransmission and therefore change the way we feel.

An opposite or mood-calming reaction takes place when the subject ingests or produces naturally an inhibitory chemical--opiates and internally produced enkephalins and related compounds, the endorphins (Belluzzi and Stein 1977, Hughes et al. 1975). Both internally produced endorphins and ingested opiates occupy neuronal receptor sites that regulate neurotransmitter release. The greater the number of occupied sites, the fewer the neurotransmitters that are released into the synapse.

There are many kinds of transmitter substances. Some are exclusively (so far as is known) excitatory or inhibitory, and some may produce either excitation or inhibition, depending on the nature of the postsynaptic receptor sites (Carlson 1986). Carlson (1986, p. 76) states,

It is important to note that neural inhibition does not always produce behavioral inhibition. For example, let us suppose that a group of neurons inhibit a particular movement. If these neurons are now inhibited, they will no longer be able to suppress the behavior. The net effect of inhibition of inhibitory neurons is excitatory on the behavior. Of course, the same goes for neural excitation, in just the opposite way. Neural excitation of neurons that inhibit a behavior will have a suppressive effect on that behavior.

To further add to the complexity of the study and identification of neurotransmitter substances is the fact that neurotransmitter substances can change their chemical composition through a process called biosynthesis. Figure 5, illustrates the biosynthesis of catecholamines a sub-class of the monoamine group of neurotransmitters. Biosynthesis usually takes several steps, and usually occurs in the cell body. The transmission substance is then placed in vesicles that are transported down the axons to the terminals. The various steps of the synthesis of transmitter substances are controlled by enzymes. Enzymes consist of special protein molecules that act as catalysts; that is, they cause a chemical reaction to take place without becoming a part of the final product themselves. The synthesis of a transmitter substance is thus controlled by the appropriate enzymes. Therefore, if a drug inactivates one of these enzymes, it will prevent the transmitter substance from being produced.

As shown in Figure 5, the amino acid tyrosine serves as the precursor for

norepinephrine. Tyrosine is transformed into L-DOPA by action of the enzyme tyrosine hydroxylase, L-DOPA then loses a carboxyl group through the activity of DOPA decarboxylase and becomes dopamine. Finally, dopamine gains a hydroxyl group via dopamine-B-hydroxylase and becomes norepinephrine (Carlson 1986). In this final stage the inhibitory neurotransmitter is changed to an excitatory neurotransmitter--adrenaline--due to the chemical transformation.

#### The biochemistry of an addiction: excitatory behavior (adrenaline high)

The following model represents an explanation of the stress-hormone high induced by the natural production of adrenaline (norepinephrine) within the brain. These biochemical reactions would take place during high arousal activities such as risk taking and fear-inducing situations such as criminal activity and sky diving. Substances like amphetamines and cocaine evoke similar responses.

Goldstein and Goldstein (1968) have proposed an enzyme expansion model for addiction. As shown in Figure 6, an enzyme known as adenylate cyclase is activated within the postsynaptic terminal, if it makes contact with a receptor site that is occupied by a neurotransmitter--dopamine or norepinephrine (adrenaline). This activated enzyme, which results from a three-way combination of the enzyme itself with the neurotransmitter and receptor, has the ability to convert an energy-rich molecule known as adenosine triphosphate (ATP) into another extremely important molecule, cyclic adenosine monophosphate (cAMP). Increasing the level of cAMP has the effect of increasing the sensitivity of the postsynaptic membrane, which in turn brings about an additional increase in neurotransmission. As discussed earlier, an increase in neurotransmission results in an increase in a person's state of arousal and elevation of mood.

The most efficient way to accomplish this three-way combination is to increase the level of neurotransmitter in the synaptic junction. A high arousal activity such as risk taking, a fear-inducing situation, compulsive buying and gambling, increases the number of excitatory neurotransmitter molecules--dopamine or norepinephrine--in the synapse and elevates a person's mood. However, an attempt to maintain the high level of arousal induced by a high arousal activity is soon countered by the body's protective mechanism, which recognizes that the physiological danger results from being in a constant state of emergency. The body's attempt to regulate the person's level of arousal causes a decrease in the amount of adenylate cyclase present in the postsynaptic terminal. This results in a decreased number of the three-way combinations necessary to produce cAMP.

During the maintenance phase of addiction, the compulsive consumer feels "normal" only while involved in the compulsive behavior. In order to experience an elevated mood, he or she must engage in more outrageous high arousal activities. Arousal activities must increase in relation to the degree of adenylate cyclase depletion in order to maintain the necessary amount of cAMP. If the addicted person decides to abort the addictive process, the person does not return to his or her preabuse state of excitation, but instead experiences

a depression of the central nervous system, which may be subjectively experienced as a depletion of energy. Because adenylate cyclase does not rapidly return to its normal level, recovering compulsive consumers experience varying degrees of withdrawal symptoms for extended periods of time. There is considerable disagreement on whether the total body chemistry does, in fact, ever return to normal.

#### BIOCHEMICAL COMMONALITIES IN COMPULSIVE CONSUMPTION

Measuring biochemical reactions in individuals is problematic. So many different chemical reactions take place at any given moment within the human brain. There exists a biochemical separation of functional systems which include hormones such as testosterone and estrogen which are produced outside the central nervous system and they are brought to the central nervous system by the blood. Other chemical inhibitors or facilitators are produced by neurosecretory cells within the brain itself. A good example is the set of opiate-like substances--endorphins--that the brain produces. Some of these neuromodulators stimulate specialized receptors that are not associated with synapses. Others appear to diffuse into the synaptic cleft, where they interact with the postsynaptic receptors.

Generally, the biochemical reactions which take place during the compulsive consumption are so subtle and complex that the chemicals relating specifically to these activities are difficult to measure in the blood or the chemical results from a blood test cannot be definitively attributed to the addictive behavior. Thus, there are no blood tests currently available appropriate for this type of research which would allow researchers to conduct blood tests of compulsive consumers at various stages of the consumption process. Brain dissection studies on cadavers of compulsive consumers has been the most reliable form of research to determine the quantity and location of various chemicals in the brain (Blum et al. 1990; Nazario 1990). Brain dissection research has shown that compulsive consumers like alcoholics and drug abusers have excessive levels of certain chemicals in specific locations in the brain. These findings of excessive chemical levels confirm hypotheses of abusive behavior by compulsive consumers. Brain chemistry mapping studies have been conducted by Lukas et al. (1986; 1986a; 1986b; 1988) and are promising for identifying the areas of the brain in which the various biochemical reactions take place. Moreover, additional evidence has been provided by the PETT (positron emission transverse tomography) studies which employ radioactive substances to trace chemical movement in the brain (Carlson 1986). The mapping studies are conducted on living subjects in highly controlled programs at alcohol and drug abuse research centers.

## CONCLUSIONS

Although an exploration of the psychophysiology of compulsive consumption represents an investigation of abnormal consumer behavior, it enhances our understanding of the psychophysiology of more typical buyers. An understanding of the psychophysiology of compulsive consumers showcases the importance of satiation, arousal and fantasy in the consumption process. It is evident that physiological pleasure is achieved through the consumption process. Unfortunately, it is when this quest for physiological pleasure becomes abusive and addictive and resultant chemical changes ensue that the compulsive consumer needs treatment. As further psychophysiological research expands our knowledge of compulsive consumption, we will add to the dearth of knowledge in this important area of research as well as enhance understanding of consumer behavior in general.

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Figure 1

A SIMPLIFIED REPRESENTATION OF THE LIMBIC SYSTEM

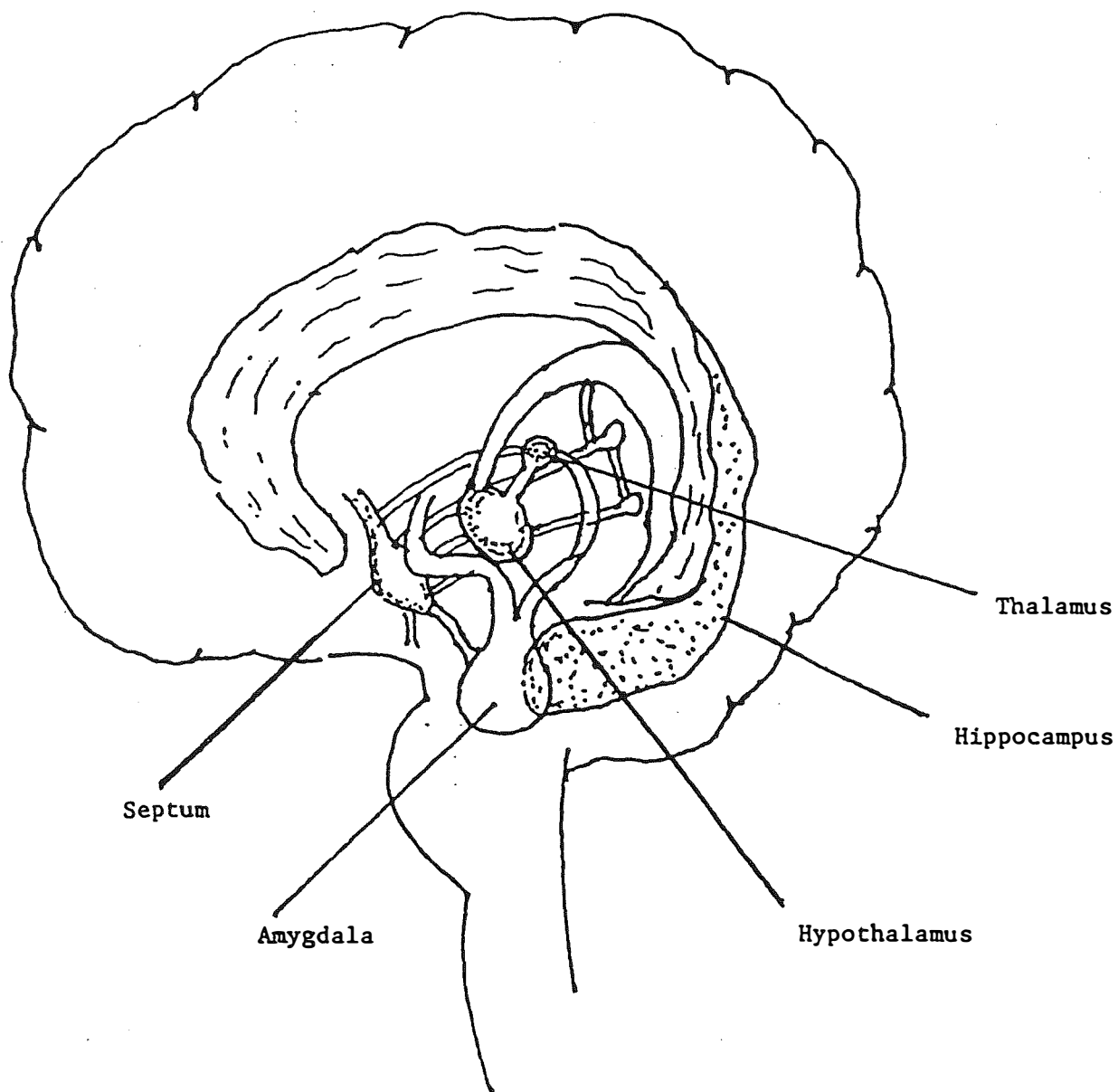


Figure 2

THE PRINCIPAL STRUCTURES OF A MULTIPOLAR NEURON

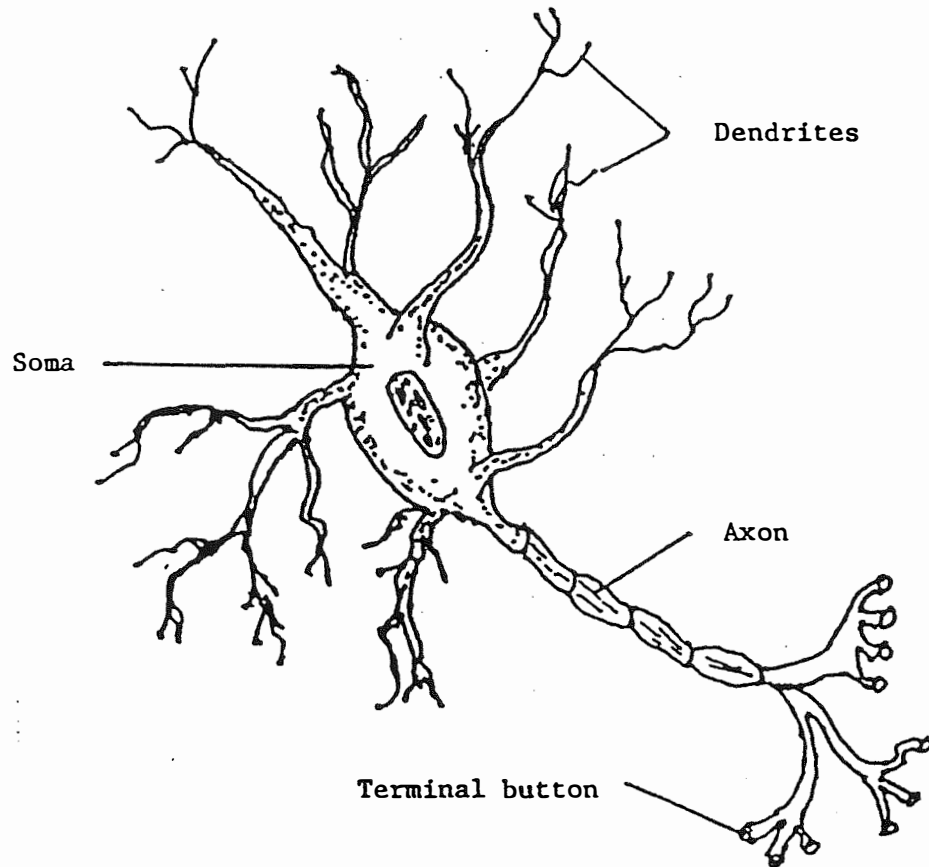


Figure 3

THE STRUCTURE OF THE SYNAPSE

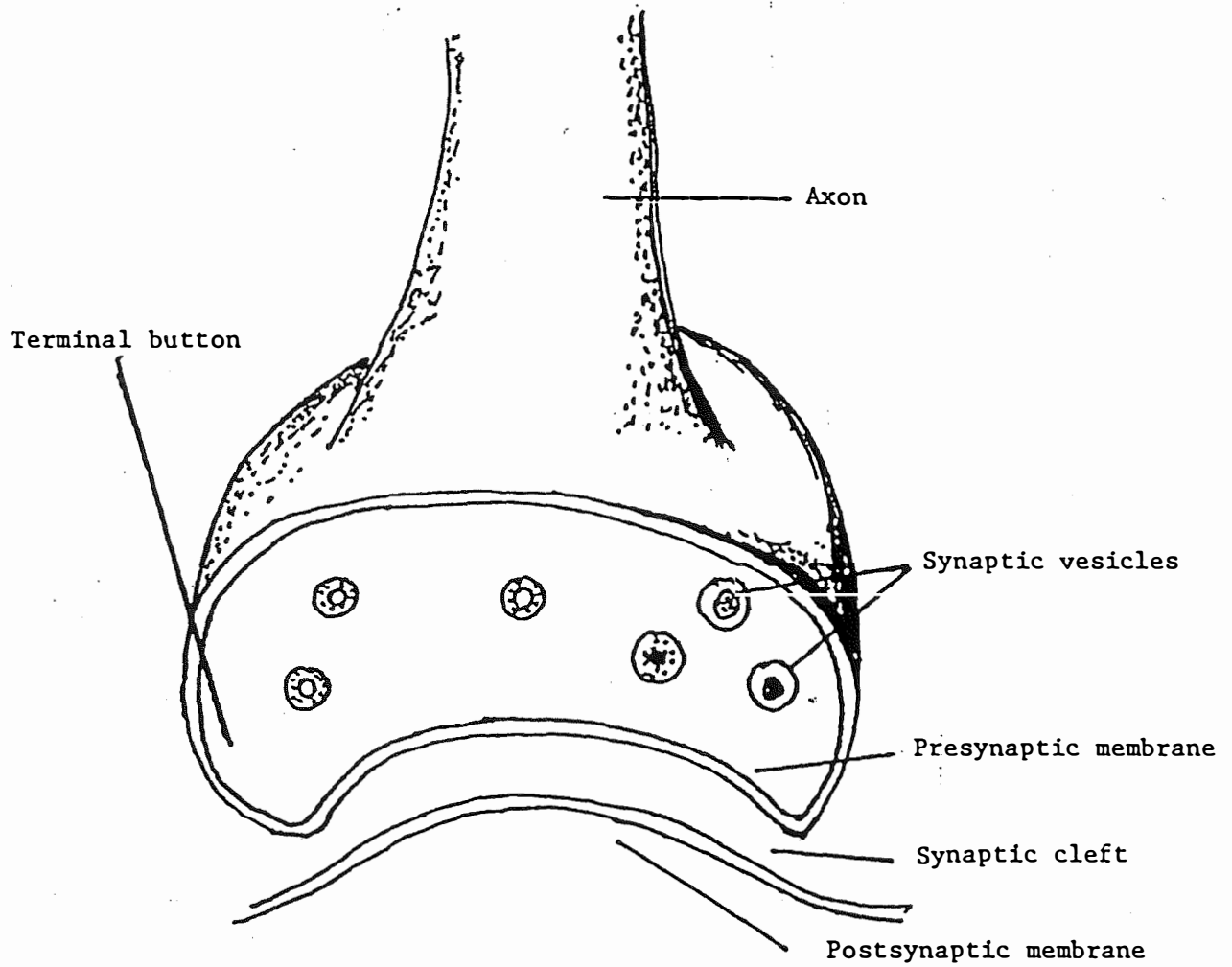


Figure 4

CHEMICAL TRANSMISSION OF A NERVE IMPULSE

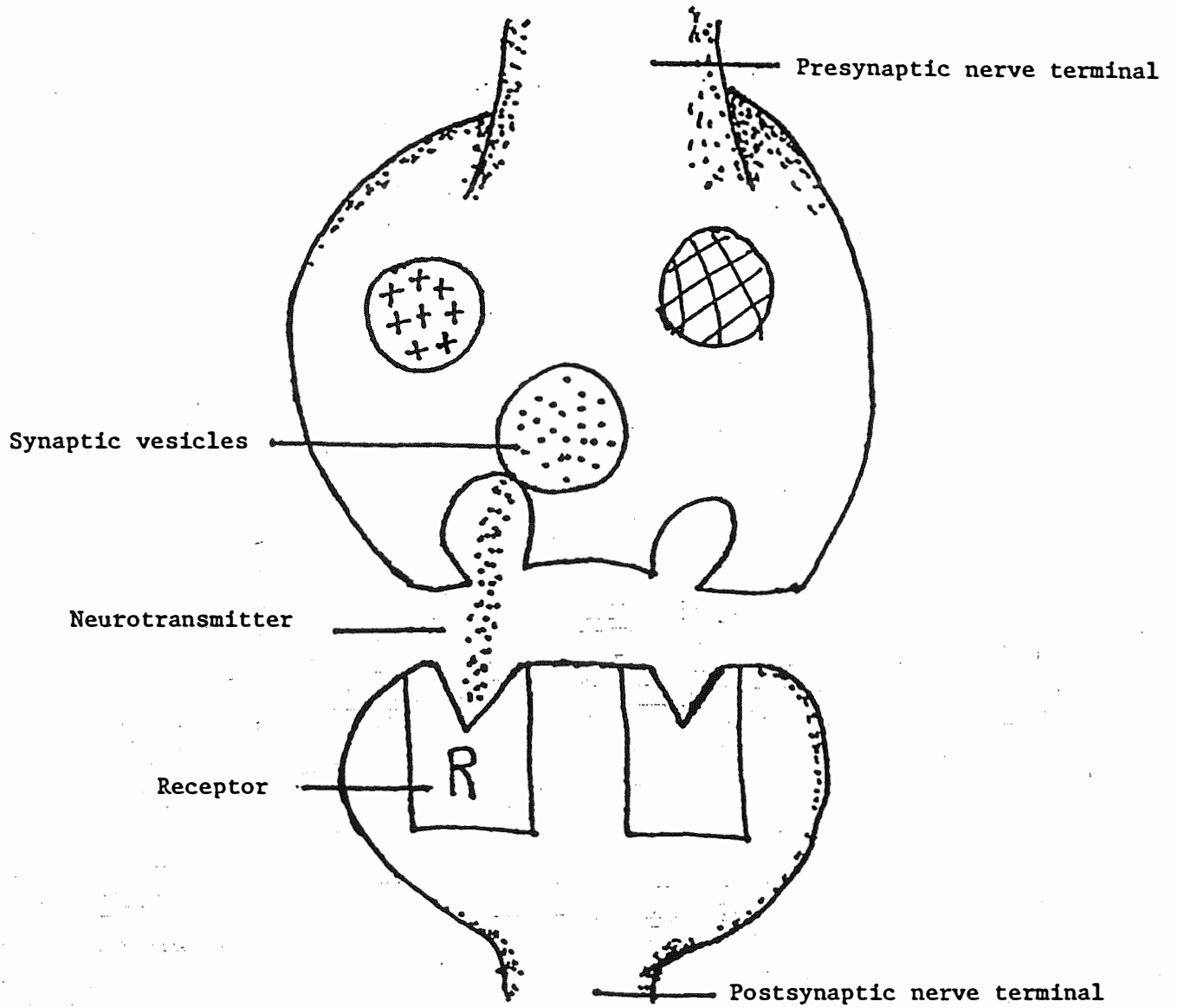
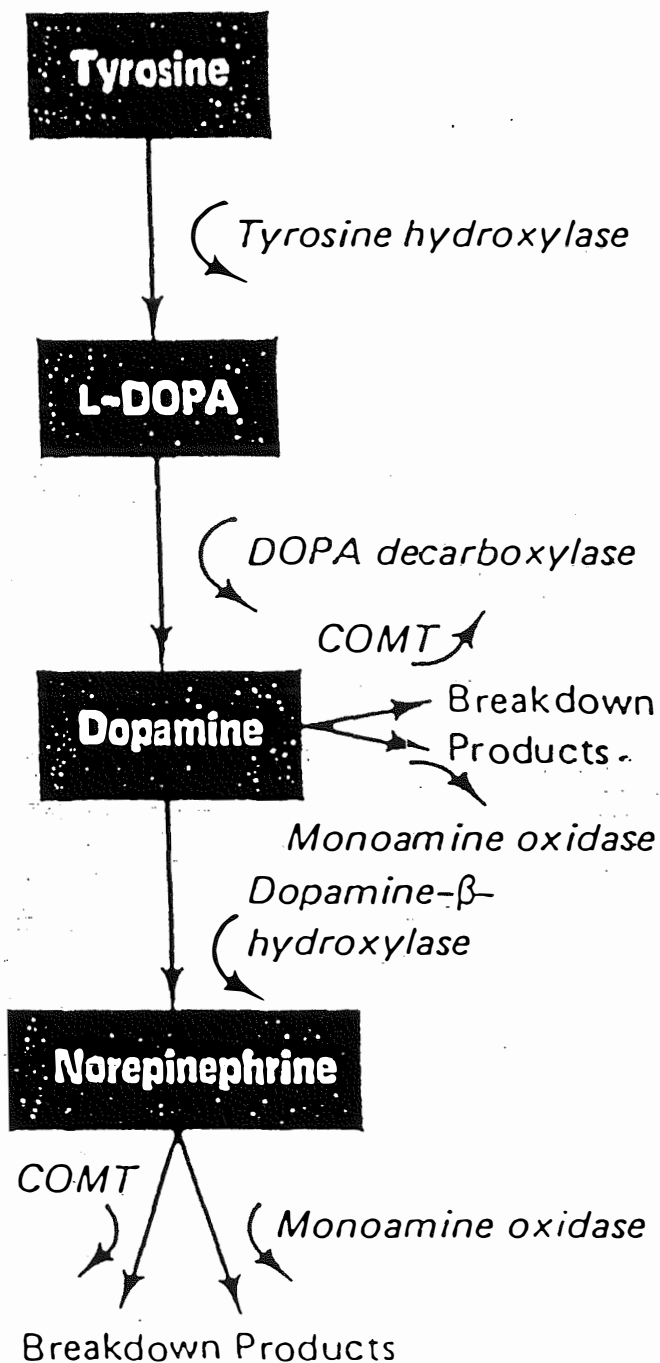


Figure 5

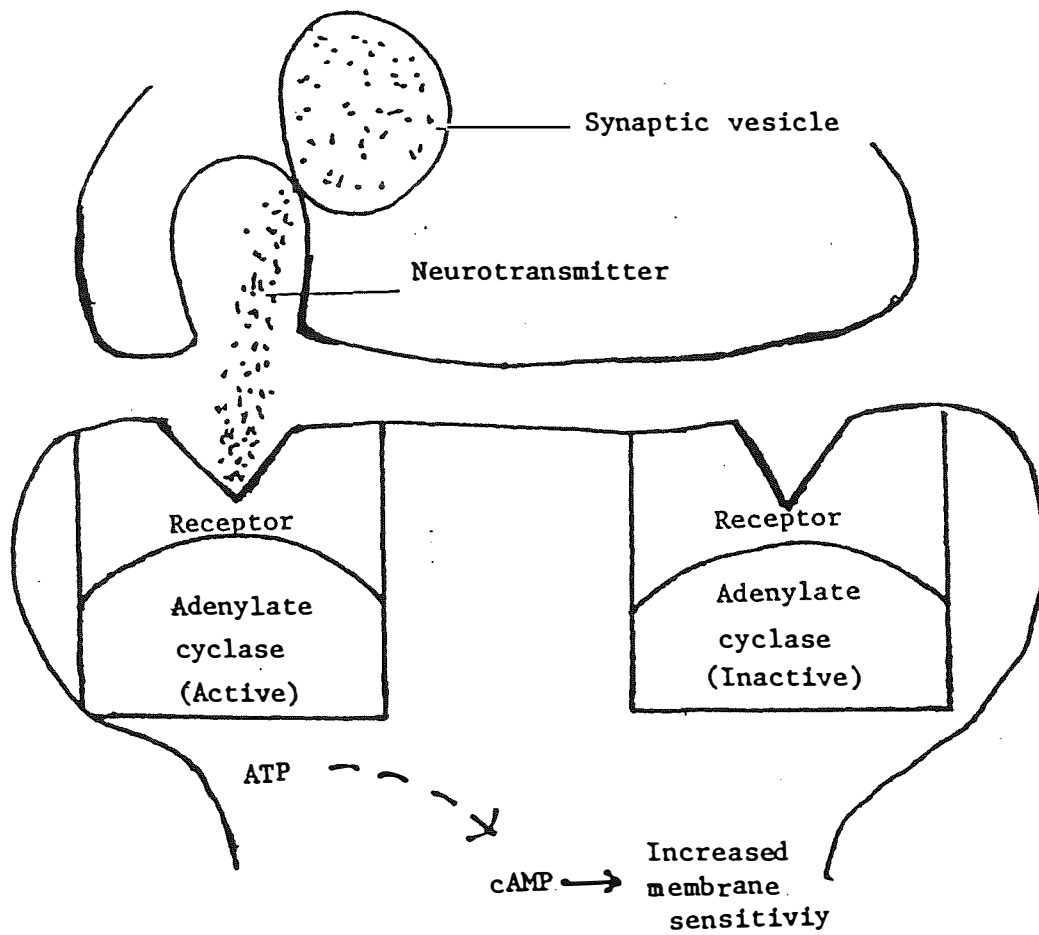
BIOSYNTHESIS OF CATECHOLAMINES



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Figure 6

ENZYME EXPANSION MODEL FOR ADDICTION





## COMPULSIVE CONSUMPTION: A GENETIC PERSPECTIVE

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## ABSTRACT

*Recent studies have indicated a genetic predisposition to alcoholism and perhaps to many other compulsive disorders. Genetic research which has identified the location and importance of the dopamine D<sub>2</sub> receptor gene which appears to play a significant role in determining susceptibility to compulsive behavior is reported and the implications for the diagnosis and treatment of compulsive consumers are discussed. Some discussion of the problems of measurement in psychophysiological research and recommendations for future research are presented.*

## INTRODUCTION

Recent studies have indicated a genetic predisposition to alcoholism and perhaps to many other compulsive disorders (Blum et al. 1990; Collins 1985; Fairley and Marshall 1986; McClearn 1983). McClearn (1983) suggests that the enzyme produced by a given gene might influence hormones and neurotransmitters in a way that contributes to the development of a personality potentially more susceptible than most to external influences, such as peer group pressure.

Establishing whether a particular trait is influenced by genetics is generally accomplished by the use of one or more of several research strategies. These are family studies, adoption studies, twin studies, and twins-reared-apart studies (Collins 1985). Twin studies are perhaps the most powerful of the geneticist's tools. Twins reared apart, that is adopted twins reared in separate families can be used to assess genetic influences especially if the twins are reared in different environments. Numerous studies conducted to assess the heredity of a sensation-seeking trait established by Zuckerman (1977) have estimated that 58 percent of the general sensation-seeking trait as heritable (Collins 1985, Zuckerman, Zuckerman 1979). Similarly, numerous studies have established that the genetic factors which influence alcoholism are considerable

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(Collins 1985). Although fewer studies have been made and the degree of influence appears to be less, the same conclusion can be made for smoking (Collins 1985).

The discovery that addiction is biological does not necessarily insure that it has a significant genetic component. For the biological process of addiction may have been influenced by prenatal or postnatal environmental influences such as stress or amount of general stimulation. Zuckerman (1969) suggests that the general levels of arousal and arousability could be set by prolonged exposure to very high or low levels of stimulation during crucial periods of development. Once children are able to walk they begin seeking their own sensations, and they can be quite creative in finding new and risky experiences. Since genetic influences may affect these early sensation-seeking behaviors, the children need not be totally dependent on the amount of change created by others in their environment but can feel their own hunger for stimulation activities (Collins 1985, Zuckerman 1979).

#### LITERATURE REVIEW

Numerous recent studies have reported findings of biochemical abnormalities among compulsive consumers. Krych (1989) reports that scientists have identified three very specific neurophysical and neurochemical abnormalities within the brains of young men genetically at risk for alcoholism. First, unusually fast EEG activity is often present in sons of alcoholics, whether or not these sons are actually exposed to alcohol. Second, at risk young men often respond to external stimuli with less neurovoltage than their peers from non-alcoholic families. Thirdly, monoamine oxidase (MAO), an enzyme in the central nervous system, is found at abnormally low levels among male alcoholics and their relatives. Other studies provide further evidence that alcoholics differ from nonalcoholics in the content of serotonin in several brain regions.

Regarding other compulsive behaviors, a recent study by Roy indicates that pathological gamblers have different levels of cerebral spinal fluids, specifically those that affect brain serotonin levels, that result in gamblers' high sensation seeking behavior (Krych 1989). Krych (1989) suggests that high risk behavior (e.g. gambling) creates increased levels of serotonin which at adequate levels produces a feeling of well being. Similar findings are reported by Kaye (The Derrick 1991) in his work with anorexia and other obsessive compulsive disorders. Excessive levels of serotonin appear to be linked to a host of compulsive disorders.

In their recent study of 386 compulsive buyers, O'Guinn and Faber (1989) found that the compulsive buyers had significantly lower self-esteem, significantly higher fantasy-imaginative level, and did not appear to have any greater desire than others to own things (O'Guinn and Faber 1989). These findings show evidence that compulsive buyers tend to exhibit the arousal and fantasy style of compulsive behavior. They also suggest that compulsive buyers might be categorized among those individuals converting natural brain chemicals into arousing or hallucinogenic compounds.

Milkman and Sunderwirth (1987) point out that the two basic types of chemical molecules--variations of indole and phenylethylamine--present in nearly all hallucinogens are also found in many compounds that occur naturally as neurotransmitters. For example, dopamine and norepinephrine have the basic phenylethylamine structure, whereas serotonin has the indole structure. Dopamine, norepinephrine, and serotonin are commonly found in significantly different quantities between individuals displaying compulsive behavior disorders and normal individuals (Krych 1989; The Derrick 1991). Milkman and Sunderwirth (1987) suggest that the fantasy aspects of some artistic, romantic, or spiritual activities may be brought about by conversion of the brain's own indole or phenylethylamine compounds into hallucinogenic variations of these chemicals. In its extreme form fantastication is thought by many psychologists and physiologists to model, if not represent, schizophrenic behavior. Carlson (1986, p. 674) states,

It is remarkable that we do not know how to produce schizophrenia by behavioral means. Stressful situations can, indeed, produce psychotic episodes in some people, but once the stress-producing stimuli are removed, the symptoms usually disappear. Long-lasting effects may occur, but they are not likely to resemble schizophrenia. In contrast, it is possible to administer drugs that will greatly intensify the symptoms of a person with schizophrenia, or induce them in apparently normal volunteers.

The drugs that can produce these symptoms are classified as dopamine agonists, the same category of chemicals which are naturally produced during compulsive consumption activities. Amphetamines, cocaine, L-Dopa and methylphenidate (Ritalin) are all capable of producing psychotic symptoms, and all are dopamine agonists (Carlson 1986). Davis (1974) provided a particularly dramatic illustration of the way that symptoms of schizophrenia can be exacerbated by dopaminergic stimulation. He and his colleagues injected small doses of methylphenidate (which causes dopamine to be released by the terminals and also inhibits re-uptake) into the veins of schizophrenic patients who were in a fairly quiet state. Within a minute after the injection, each patient was transformed "from a mild schizophrenic into a wild and very florid schizophrenic." Thus it cannot be said that the drug merely made the patients more active--whatever their symptoms were, they became worse (Carlson 1986).

Blum et al. (1990) have identified the dopamine D<sub>2</sub> receptor gene as a probable antecedent in the addictive process. The presence or absence of the dopamine D<sub>2</sub> and its derivatives are suspected of enhancing the probability that an individual would be more susceptible to compulsive disorders. The susceptibility appears to be due to the genetic determination of the receptor sites which aid in neurotransmission. The quantity and quality (whether the receptor sites are damaged) can play an important role in the neurotransmission process. David Comings, director of the medical-genetics department at City of Hope Medical Center in Duarte, California states, "This is going to be an important gene. No one says inheriting this gene means your become alcoholic,

but there is evidence that the gene plays an important role in the development and progression [of alcoholism and other diseases]" (Waldholz 1991). Blum et al. (1990) removed brain tissue from 35 alcoholics and 35 nonalcoholics during the autopsy and it was immediately frozen. The 70 frozen brain samples were coded without reference to their group identity (alcoholic versus nonalcoholic). They were then thawed and processed for high-molecular-weight genomic DNA. The DNA was spooled out and hybridized with the human dopamine D<sub>2</sub> receptor gene using standard methods. Blum et al. (1990) report finding a link between the presence of the dopamine D<sub>2</sub> receptor gene (a neurotransmitter in the brain associated with pleasure-seeking behavior) and alcoholism. The researchers reported that of the individuals categorized in the study as alcoholics, 77% possessed the dopamine D<sub>2</sub> receptor gene, whereas of those who were categorized as nonalcoholics, only 28% possessed the dopamine D<sub>2</sub> receptor gene. Blum et al. (1990) concluded that there is a significant genetic component to alcoholism. This conclusion has led to the realization that individuals who are at risk of becoming alcoholic, because of inherited factors, are biologically and behaviorally different from individuals who have few or no inherited factors that predispose them to alcoholism.

While this initial report was challenged by David Goldman and colleagues at the National Institute of Alcohol Abuse and Alcoholism when they were unable to duplicate the findings, new studies by Blum and Noble, Parsian and Cloninger, and Uhl have confirmed the initial findings and indicated that many other compulsive disorders might originate with a defective dopamine receptor gene (Waldholz 1991). The most recent study by Blum and Noble suggests that the A1 version of the nerve's dopamine receptor is somehow defective and might require unusual stimulation to give a person a normal reaction. In a recent interview, Dr. Blum advises, "Our guess is that people with the A1 version feel deprived of certain normal feelings of pleasure and feed that need with alcohol, drugs, or other behaviors." (Waldholz 1991, p. B4). Blum and Noble searched for the A1 gene in DNA from the blood of 159 living people. Overall, they found the gene was present in 50% of alcoholics compared with 21% of nonalcoholics. David Comings has presented a study showing a high percentage of the A1 gene in people with some behavioral problems and he expected to report similar findings in other ailments this fall. A report on drug abusers by Uhl of the National Institute of Drug Abuse may also be out later this year (Waldholz 1991).

There is some concern regarding the clear patterns of inheritance of the A1 gene. In evaluating the recent Blum and Noble study on alcoholism, Abbas Parsian suggests, "We think what Blum and Noble have uncovered is a modifying gene. We think something else, perhaps one or more genes, makes people susceptible to the disease; but if they also have the A1 gene, that risk either increases sharply or makes them especially vulnerable to a severe type of the disease." (Waldholz 1991, p. B4). Studies by Parsian and Cloninger with larger samples are underway to further clarify inheritance patterns.

Recently, Shimada et al. (1991) have isolated the gene for a brain protein that is sensitive to cocaine, an advance that could help in developing a treatment for addiction to the drug. The protein is called a dopamine

transporter. Some cells communicate by releasing dopamine as a chemical messenger, or dopamine neurotransmitter. The researchers describe how cocaine, as well as other drugs such as amphetamines, bind to the transporter--dopamine--preventing it from shutting down the message stream. This prolonged stimulation results in intense euphoria. The researchers suggest that scientists can now try to split up the protein separating the parts necessary for cocaine binding from those that transport dopamine. This could pave the way for development of a drug that blocks the effect of cocaine but does not affect dopamine uptake.

#### DISCUSSION AND DIRECTIONS FOR FUTURE RESEARCH

The current research seems to indicate that there is growing evidence that individuals who are susceptible to addictions are similar and, perhaps, only differ in the choice of abusive activity (Peele 1989; Krych 1989; Milkman and Sunderwirth 1987; Zuckerman 1979). The parallels which exist between alcoholism, cocaine addiction, and other addictions are many--physiology, neurochemical processes, and genetic patterns. The literature more clearly establishes that the various forms of addiction are a disease and adds to the evidence that genetic factors are as important as environmental factors in predisposing people to this type of disease. This evidence suggests that the similarity in susceptibility to addictive behavior, more than likely, accounts for the differences which exist between compulsive and normal consumers. While normal consumers experience the emotional vicissitudes of consumption behavior and the concomitant biochemical responses, addicted consumers appear to be more vulnerable to chemical imbalances. The specific weights of the psychological, environmental, and the genetic predisposition factors in the equation remain to be seen.

Several streams of research have lead to diagnostic instruments. Faber and O'Guinn (1989) have made significant progress in the development of a scale comprised of 14 psychological and economic measures which best discriminate self identified compulsive buyers from members of the general population. The findings from the Blum et al. (1990) study have lead to the availability of a blood test to detect the presence of genes associated with alcoholism and other compulsive consumption activities in the DNA of subjects.

Genetic testing is particularly well suited for early intervention treatment with potentially susceptible compulsive consumers. Genetic testing could help identify children who are predisposed to compulsive consumption and help divert children predisposed to compulsive consumption from situations that increase the chances of becoming addicted to the activity. Moreover, intervention and training programs can be designed to help compulsive consumers control their problem. Additionally, research is being conducted which could aid the administration of drugs, some already available, that would treat genetically based compulsive disorders by blocking the gene or counteracting the effects of excitatory neurotransmitters (U.S. News & World Report 1991).

Current programs with cancer patients are attempting to genetically rework humans, replacing such degenerative or "bad" genes with healthy, or "good" ones.

The very first gene-therapy patient is now being treated at the National Cancer Institute by Kenneth Culver, R. Michael Blaes, and W. French Anderson for a rare ADA deficiency. Tests will soon show whether manipulating the genes of this four-year-old girl who suffers from a rare immune deficiency disease has helped her fight off infections on her own. Also, doctors will soon know how well two skin cancer patients are tolerating doses of genetically revved-up immune cells. Forty-eight patients have signed up for the first round of safety trials. Nine other gene therapy studies are planned. W. French Anderson says "These are the first steps toward what will probably be a medical revolution" (U.S. News & World Report 1991, p. 94). As progress continues with gene-therapy research, applications of this treatment will surely be developed for individuals suffering from compulsive consumption diseases.

The measurements of the various biochemical reactions and the genetic predisposition are complex tasks and are influenced greatly by technological advances in psychophysiological and genetic research. Recent advances in genetic research has enabled researchers to take blood samples from living subjects and analyze the genetic composition of the samples. While this technique facilitates the gene mapping process, experts indicate that there are perhaps 100,000 human genes (U.S. News & World Report 1991). While progress is being made, studies take time, with clear patterns and certainty of findings remaining elusive.

Further research is needed to determine the commonalities and differences among various kinds of compulsive consumption and the distinctions between compulsive consumption and other forms of compulsive behavior. Further study will help explain why some people manifest a compulsive disorder through consumption rather than in some other way. Genetic research conducted with blood samples of other compulsive consumers similar to the alcoholism studies will reveal additional knowledge regarding the genetic similarities and differences which exist between compulsive consumers and normal consumers. In particular, an experiment can be conducted to ascertain the differences between compulsive shoppers and shoppers who do not appear to have problems with their consumption behavior. Shoppers can be identified as compulsive shoppers if they have financial problems due to uncontrollable purchase behavior or consumers who are self identified as having a problem with excessive purchasing behavior. If the consumer feels as though they have purchased a product due to a compulsion where after the purchase they do not really feel that they have a use for the product, then they would be classified as consumers with a problem. There are several nationally supported agencies supported by the banking industry who counsel consumers with excessive credit card debt. These agencies can be approached to assist in identifying volunteers to participate in a study. A random sample of these consumers who have a history of credit card debt would be compared to a random sample of average or normal shoppers who do not have a history of credit card debt. Of course environmental factors such as income and financial capacity would need to be controlled. The two samples could be compared using recent genetic blood screening techniques (Blum 1990, U.S. News and World Report 1991). Perhaps, the results of this experiment will answer some of our outstanding questions.

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## JAPAN'S DIRECT INVESTMENT IN THE UNITED STATES

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### ABSTRACT

*This research attempts to analyze the patterns of Japanese direct investment in the United States (U.S.) from 1960 to 1995. Foreign direct investment (FDI) data are analyzed and previous studies are examined. Japan's FDI in the U.S. is relatively recent but accelerated significantly throughout the period, reaching \$107.7 billion by the end of 1995. Factors which may have contributed to the rapid rise in Japanese FDI include the liberalization of Japanese investment policies in 1972 and the monopolistic advantages of Japanese firms in the area of mass production technology and product quality. Early patterns of Japanese FDI were determined mainly by the requirements of the Japanese economy for raw materials and the associated need to export. Within the manufacturing sector, the growth in Japanese investments in the U.S. is attributed partly to the increasing U.S. protectionist policies which intensified in the 1970s and the 1980s.*

### INTRODUCTION

The rapid expansion of Japan's direct investment in the 1980s has attracted policy debate on the issue of FDI in the U.S. The growing concern seems to be about the implications of Japan's control of the U.S. economy.

This study attempts to examine the patterns of direct investment by Japanese multinationals in United States enterprises during the period 1960-95. It contributes in three ways to the analysis of Japanese direct investment in the United States. First, we review the existing FDI data on Japan and discuss the main issues. Second, we examine existing FDI theories as well as hypotheses on the presence of Japanese direct investments in the United States. Third, we provide an analysis of the patterns of Japanese direct investment in the United States.

### FOREIGN DIRECT INVESTMENT DATA

In this section, we review some issues that relate to the construction of the FDI data. We examine issues of definition, accuracy, and coverage of Japanese direct investment data reported by the Bureau of Economic Analysis (BEA), U.S. Department of Commerce.

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To distinguish direct from portfolio investment, BEA defines a direct investment position in the United States as the "ownership, direct or indirect, by a single foreign person (including an associated group of foreign persons) of at least 25 percent of the voting stock of an incorporated U.S. business enterprise, or an equivalent interest in an unincorporated U.S. business enterprise" (Department of Commerce, 1984). For the years 1974-95, the ownership criterion was lowered to 10 percent. The difference in reporting may have been insignificant when Japanese FDI was relatively small. In recent years, however, the lowering of the threshold may give a misleading notion of the extent of Japan's control of the U.S. economy (Stekler & Stevens, 1992).

The current FDI data collection system involves periodic (usually every five years) benchmark censuses covering all U.S. foreign affiliates. For non-benchmark years, estimates are based on the movement of a sample survey obtained from BEA's quarterly reports of large corporations.

Foreign direct investment data are currently available only on an enterprise or company basis. This implies that multi-national enterprises with diversified operations will be lumped into the industry in which the firm has the largest operation. As an example, suppose that 49 percent of an affiliate's sales are generated from electronics manufacturing while 51 percent come from wholesaling. The reported total in this case will be wholly attributed to wholesaling, overstating the aggregate figures for wholesaling and understating that for the electronics industry.

Recent changes on data reporting through the data link project of the Department of Commerce will provide considerable information on foreign direct investment in the United States by the collection of data on a plant instead of an enterprise basis. This is a major development since this will allow researchers to link FDI data with more U.S. industry data now collected on a plant basis.

#### THEORIES AND HYPOTHESES ON FOREIGN DIRECT INVESTMENT

In this section, we analyze the various theories and hypotheses which may help to explain the patterns of Japanese direct investment in the United States. Modern theories of FDI have focused on explanations using industrial organization approaches. The main FDI theories include the monopolistic advantage, internalization and eclectic theories. Although these theories are not as fully integrated as the classical theory of trade, they appear to be complementary rather than alternative explanations.

Following the work of Hymer (1976), the monopolistic advantage explanation of FDI focused on the existence of market imperfections which provide multinational enterprises with firm-specific advantages over host country firms. These advantages may include superior knowledge, technology, marketing skills, management and organization skills. These firm-specific advantages enable the multinational firms to compete across national boundaries despite the many additional transaction costs that multinational firms must incur relative to

local firms.

The internalization theory (Buckley & Casson, 1976) of FDI asserts that markets may not be efficient in capturing the firm-specific advantages of multinational enterprises, hence firms replace market transactions with internal transactions. Firms produce external benefits and some, such as technology and new knowledge, have the characteristic of a public good. To some extent, the positive externalities created by new information and technology can be protected by legal means or the assignment of property rights. However, much of these externalities may have to be protected simply by preventing spillover of technology and new knowledge to other firms through the direct control of these assets. The internalization theory thus helps explain why FDI is chosen in favor of other forms of market transactions such as exporting and licensing.

Dunning's eclectic theory of FDI brings together the monopolistic advantage and internalization elements and adds a new element emphasizing the location or country-specific advantages drawing firms to invest (Dunning 1981, 1988). This new element helps to explain where FDI is located. It draws insights from trade theories on comparative advantage. To explain why multinational enterprises undertake FDI in the first place lies with the monopolistic advantage and internalization theories. The former may also explain the types of firms and industries that undertake FDI while the internalization theory explains why FDI is chosen in favor of other forms of market transactions.

The aspects of the theories described earlier may provide explanations for the existence and patterns of Japanese direct investment in the United States. Based on these theories, the major factors which may explain the Japanese FDI patterns include exchange rate changes, U.S. market-size, Japan's technological advantage, U.S. imports from Japan, and a shift in Japan's FDI policy. We examine some of the major contentions below.

A frequent argument made is that exchange rate movements affect the level of Japanese direct investment in the United States by making U.S. assets appear cheap during a yen appreciation. Froot (1991) argues that it is not so much that U.S. assets are cheaper but rather the fact that a yen appreciation allows Japanese firms to outbid American investors. Other studies find that the appreciation of the yen has supposedly undermined Japan's ability to export (Gittelman & Dunning, 1992) and has therefore induced Japanese firms to locate in the U.S. in order to preserve their markets. In all these cases, yen appreciation vis-a-vis the U.S. dollar is expected to increase Japanese direct investment in the United States. Hultman and McGee (1989), on the other hand, find a reverse relationship between exchange rates and FDI in their study of foreign banks. They find instead that a depreciation of the yen is correlated with an increase in foreign direct investment. They argue that this reflects the unique aspect of banks as intermediaries of U.S. dollar-denominated financial assets whose profits in yen increase as the dollar appreciates. Based on our review, it is apparent that an appreciation of the yen is positively related to Japanese direct investment in the United States.

Market-size is expected to positively affect the flow of Japanese direct investment in the United States. Dunning (1981, 1988) explains that a large market and/or a growing market provides opportunities for greater economies of scale. This allows firms to exploit more fully their firm-specific advantages. Yoshida's (1987) study of Japanese corporations in the United States expounds on the benefits of market-size and locating in the United States in terms of new flexibility and efficiency in transferring their processes and management technologies.

Japanese direct investment in the United States are sometimes considered as substitutes for U.S. imports from Japan. Others have claimed that the expanding U.S. imports from Japan have encouraged Japanese firms to invest in the United States to service their customers and expand their market. It is not too difficult to find examples for each side of the argument. For example, the increased exportation of Japanese cars to the United States has induced Bridgestone Tire Co. to become a major player in the United States. The other contention is that Japanese direct investment in the United States is a substitute for U.S. imports from Japan. This is an implication of the internalization theory discussed earlier.

Japan's emergence as an economic power in the 1970s is frequently associated with Japan's technological advances created by research and development. It is thus not surprising that these advances appear to be an important factor in Japan's increase in foreign direct investment as well. These advances in marketing, technology, and mass production have provided Japanese firms with firm-specific advantages that allowed them to undertake foreign direct investment. Japanese firms' technology advantage in electronics and automobile production and marketing are usually cited as examples (Yoshida, 1987).

Prior to 1970, both Japanese FDI in other countries and inward FDI in Japan were subject to explicit controls with respect to magnitude and areas of investments. The liberalization of foreign investment policy should induce the growth of Japanese direct investment in the United States (Itoh & Kiyono, 1986; Yoshida, 1987).

#### BEHAVIOR OF JAPAN'S DIRECT INVESTMENT, 1960-95

Japanese direct investment in the United States is a fairly recent phenomenon. In 1960, Japanese FDI in the United States totaled \$88.0 million (table 1). After a decade, it had reached only \$176 million while it took fifteen years to reach the \$1.0 billion level. The recent origin of Japanese investments in the United States is also evidenced by the fact that majority of Japanese-owned plants in the United States were established only after 1970. Of 521 plants in operation or under construction in 1983, only 22 were established prior to 1971 (Yoshida, 1987). Similarly, the familiar U.S.-built Japanese cars were produced in plants constructed only after 1982.

Prior to 1970, Japanese FDI appeared to have been built upon a strategy of supporting the domestic structural needs of the Japanese economy, including the

sourcing of raw materials from abroad and the need to export Japanese goods. This strategy largely determined the patterns of Japanese FDI with investments in trading, wholesaling and distributing to support exports together with investments in primary and intermediate goods production. Such a strategy was in fact articulated in Japan's investment and foreign exchange policies. Prior to June 1971, all outward investments by Japanese firms had to be approved individually by Japan's Ministry of Finance according to whether the investment promotes exports and/or develops and secures natural resources overseas. By May 1972, Japan had removed the control of foreign investment and the centralized allocation of foreign exchange (Yoshida, 1987).

After a crisis period (1971-73) which was marked by the demise of the Bretton Woods fixed exchange rate system and the first oil crisis, the rapid expansion of Japanese FDI commenced in 1974. By the end of the decade, total FDI has reached \$3.5 billion. It appears clear that the liberalization policy that removed controls on Japanese FDI has contributed to the acceleration of Japanese investments in the United States. However, the broad patterns of investment did not appear to depart too much from that in the 1970s. Exportation of Japanese goods was still the focus with considerable investments taking place in downstream activities of wholesaling and distribution. During the second half of the 1970s much of the growth in Japanese FDI occurred in trading and distribution sectors, accounting for about 58 percent share of Japan's total direct investment in the United States by the end of the decade (table 1).

The growth of Japan's FDI in the 1970s was contemporaneous with the emergence of Japan as an economic power. By this period, Japanese firms had acquired sufficient competitive advantages in the form of mass production technology, product quality, and marketing know-how that enabled them to expand rapidly (Yoshida, 1987).

During the 1980s several trends took place. The overall composition of Japanese FDI was marked by a substantial shift towards financial services and real estate in the late 1980s. This growth is attributed mainly to the acquisition of real estate by Japanese investors. By 1984, Japanese investment in this sector surpassed manufacturing in terms of dollar value, accounting for about \$3.2 billion in that year and growing to \$25.2 billion by 1989 (table 1), thereby surpassing the United Kingdom as the largest real estate investor in the United States.

The second major change in the pattern of Japanese direct investment in the United States in the 1980s was the shift within the manufacturing sector from activities designed to facilitate exports and imports to a strategy of U.S. production and substitution for exports from Japan (U.S. Department of Commerce, 1996). This strategy appears to have been influenced by perceived and actual U.S. protectionism which intensified in the 1970's and the 1980's. The rise in U.S. protectionist policies is attributed in part to the growth of the U.S. bilateral trade deficit with Japan which grew rapidly between 1975 to 1995. Chart 1 shows the rise of the U.S. trade deficit with Japan rising from \$1.8 billion in 1975 to \$59.1 billion by the end of 1995.

The rise of U.S. protectionist policies has taken various forms including, a) the increasing use and enforcement of administrative remedies and procedures such as voluntary export restraints, orderly marketing agreements, anti-dumping and countervailing duty procedures and b) the more vigorous attempts by Congress to reclaim control over trade policy which it delegated to the President prior to World War II (through the Trade Act of 1934). Chart 2 shows a chronology of the major trade laws enacted by Congress as well as highlights of trade positions taken by various Administrations.

One example of the shift in strategy by Japanese firms away from exports towards U.S. production as a result of trade protectionism involved color television sets. In mid-1976 the influx of color television exports from Japan resulted in a serious trade conflict between the United States and Japan. The response of the Japanese firms was immediate. From a level of more than 2 million units in 1976, Japan's color television exports to the United States trickled down to 50 units in 1979, most of it being replaced by U.S. production by Japanese firms. A more prominent example occurred in the car industry with the introduction of the voluntary export restraints in 1981. As a result, Japanese car manufacturers began producing in the United States by 1983. One measure of this shift in strategy by Japanese car manufacturers is the ratio of car exports to total car output in Japan which declined from 3.13 in 1983 to 1.47 in 1986 (Itoh & Kiyono, 1986).

This pattern of substitution from Japanese exports to U.S. production stimulated the growth of Japanese FDI in the U.S. manufacturing sector. Japan's direct investment in the manufacturing sector grew by 61% in the 1970s commencing from a mere 4 percent average growth in the 1960s, then continued to grow at 117% in the second half of 1980s (table 2). During the first half of the 1990s, Japan's direct investment in the manufacturing sector continued to expand by 48% average growth.

Some authors (Yoshida, 1987; Froot, 1991; Graham & Krugman, 1991) have suggested that due to the shift in strategy from exports towards U.S. production, we should see a decline in the relative importance of wholesale trade and distribution in the composition of Japanese FDI. The numbers in Table 3 do not bear out this prediction, at least until recent years. The average share of trading increased from a low of 21 percent in 1960-64 to a high of 66 percent in 1980-84. On the other hand, manufacturing sector's average share declined from 57 percent in 1960-64 to 16 percent in 1980-84. In recent years, however, this pattern has changed. The manufacturing sector's average share had increased to 54 percent in 1995 while the average share of the trading sector declined from 66 percent in 1980-84 to 14 percent in 1995 (table 3).

In recent years, the growth of Japanese FDI in all sectors slowed down to about 6 percent from a rapid growth of 57 percent during the 1980s (Table 2). Some authors have attributed this decline to the recession in Japan and other industrialized countries

### CONCLUSION

This paper analyzed the data and patterns of Japanese direct investment in the United States for the period 1960-95. We also examined some of the theories as well as hypotheses which may explain the presence and patterns of Japanese direct investment in the United States. Recent changes on data reporting through the data link project of the Department of Commerce will provide considerable information on foreign direct investment in the United States by the collection of data on a plant instead of enterprise basis. This will allow researchers to link FDI data with more U.S. industry data which will now be collected on a plant basis.

Modern theories of foreign direct investment have focused on explanations using industrial organization approaches. According to these theories, the main explanation for foreign direct investment include the monopolistic advantage, internalization and eclectic theories. These theories help to explain the patterns of Japanese direct investment in the United States. The major patterns that emerged from this study of Japanese investments in the U.S. are as follows:

- a) Japanese FDI is relatively recent, reaching one billion dollars only in 1976 but accelerated significantly throughout the period, reaching \$107.7 billion by the end of 1995. Factors which may have contributed to the rapid rise in Japanese FDI include the liberalization of Japanese investment policies in 1972 and the increasing competitiveness or monopolistic advantages of Japanese firms in the area of mass production technology and product quality.
- b) While the major focus of U.S. concerns over Japanese FDI is on the manufacturing sector, specifically on the car and electronics industry, a significant share of Japanese FDI in the U.S. consists of non-manufacturing businesses including banking, real estate, wholesaling and distribution. In the early 1960s and 1970s, Japanese investment in the U.S. was dominated by the need to support Japan's domestic economy through exports and raw materials from abroad. This strategy largely determined the early patterns of Japanese FDI with investments in primary and intermediated goods and wholesaling and distribution to support exports. In the 1980s, Japanese businesses invested more in the U.S. real estate markets than they did in manufacturing.
- c) Within the manufacturing sector, the growth in Japanese investments in the U.S. is attributed partly to the increasing U.S. protectionist policies which intensified in the 1970s and the 1980s over concerns about the U.S. trade deficit, the "unfair trading practices" of Japan, and the lack of market access in Japan. The increasing protectionist policies provided incentives to Japanese firms to shift to U.S. production and away from exports. The most prominent instance of such shift in strategy away from exports towards U.S. production were Japanese investments in the car industry as a result of the voluntary export restraints initiated in 1981.

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Table 1

Japan's Direct Investment in the United States, 1960-95, In Million \$

Year	Total	Mfg	%	Trade	%	Fina	%
1960	88	50	57	19	22	19	22
1961	92	51	55	23	25	18	20
1962	112	51	46	42	38	19	17
1963	104	55	53	29	28	20	19
1964	72	54	75	-4	-6	22	31
1965	118	56	47	40	34	22	19
1966	103	60	58	21	20	22	21
1967	108	64	59	19	18	25	23
1968	181	65	36	83	46	33	18
1969	176	67	38	70	40	39	22
1970	230	70	30	117	51	43	19
1971	-227	76	n	-353	n	50	n
1972	-154	72	n	-283	n	57	n
1973	152	141	93	-271	n	282	186
1974	345	330	96	-389	n	404	117
1975	591	325	55	-218	n	s	s
1976	1178	304	26	45	4	s	s
1977	1755	332	19	793	45	583	33
1978	2749	474	17	1529	56	s	s
1979	3493	696	20	2029	58	768	22
1980	5239	1033	20	3297	63	909	17
1981	8134	1321	16	5327	65	1485	18
1982	9677	1624	17	6733	70	1320	14
1983	11765	1605	14	8079	69	2081	18
1984	16044	2460	15	10335	64	3248	20
1985	19313	2738	14	12709	66	3866	20
1986	26824	3578	13	15514	58	7732	29
1987	34421	4970	14	18228	53	11223	33
1988	51126	11065	22	21572	42	18489	36
1989	67270	15601	23	26382	39	25287	38
1990	81775	17153	21	34613	42	30008	37
1991	86658	18657	22	36564	42	31437	36
1992	99157	51776	52	11330	11	35987	36
1993	98196	53624	55	11425	12	33081	34
1994	102135	54384	53	12686	12	34999	34
1995	107757	58425	54	15112	14	34152	32

Notes: Dollar values are at historical cost. Mfg.-Manufacturing, Trade includes wholesaling, retailing, and other industries. Fina-Finance includes banking, insurance, and real estate. % indicates percentage share to total. n means not meaningful. s indicates that data is suppressed. Negative figures indicate reverse investment.

Source: U.S. Department of Commerce, Bureau of Economic Analysis

Table 2

Japan's Direct Investment in the United States, 1960-1995

Annual Growth Rates, In Percent

Period	Manufacturing	Finance	Trading Total	
1960-64	2	4	-30	-5
1965-69	5	19	19	12
1970-74	93	210	-11	13
1975-79	29	n	n	123
1980-84	35	64	53	52
1985-89	117	139	27	62
1990-95	48	3	-11	6

Notes: Growth rates are for a period of 4 years except for 1990-95. "n" means that the data is not meaningful due to suppressed data or negative base period in various years.

Source: U.S. Department of Commerce, Bureau of Economic Analysis.

Table 3

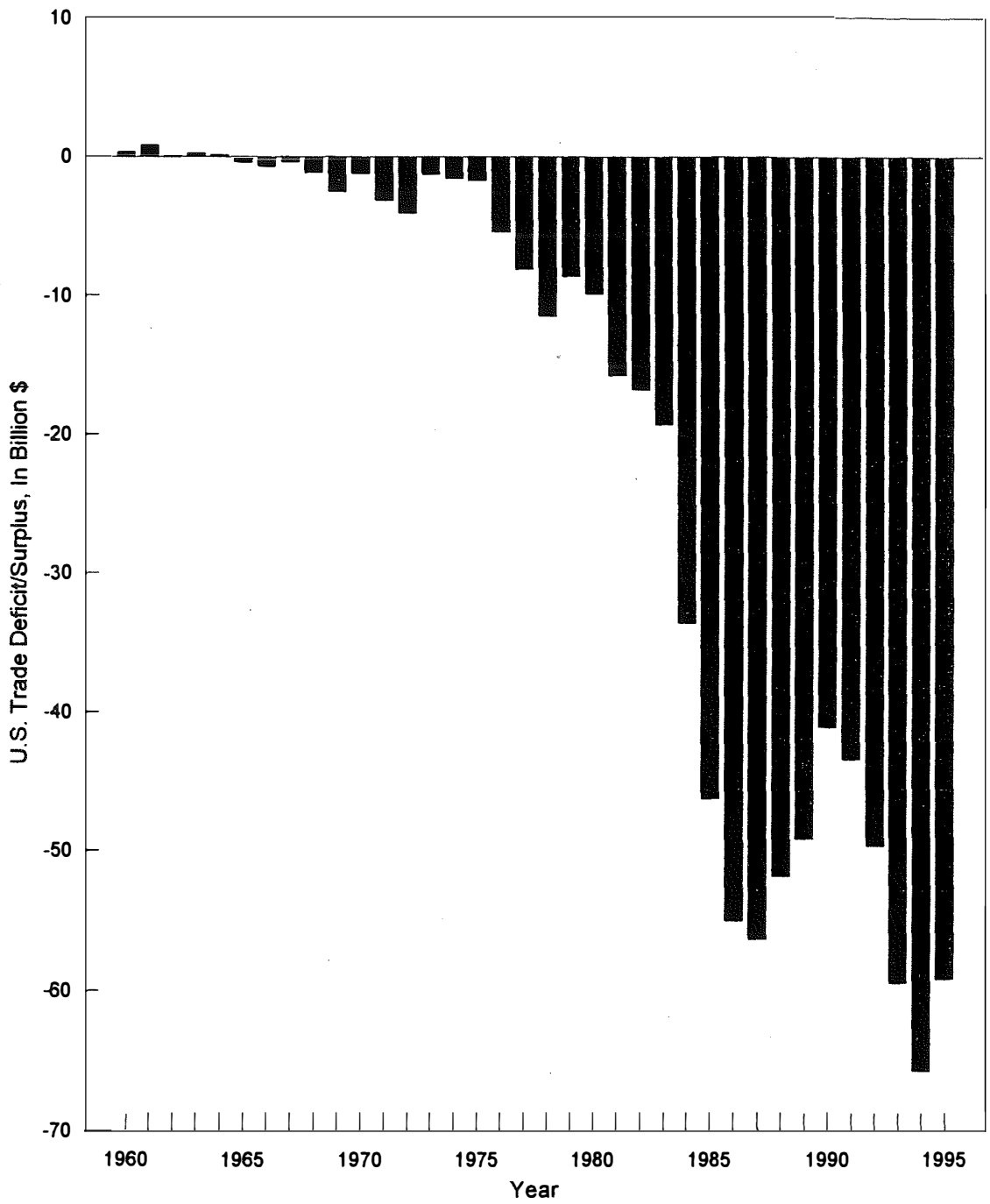
Japan's Direct Investment in the United States

Average Shares to Total, In Percent

Period	Manufacturing	Finance	Trading
1960-64	57	22	21
1965-69	48	21	32
1970-74	28	52	20
1975-79	27	28	25
1980-84	16	17	66
1985-89	17	31	52
1990-94	41	35	24
1995	54	32	14

Source: U.S. Department of Commerce, Bureau of Economic Analysis

Chart 1  
U.S.-Japan Trade Balance, 1960-1995



Source: U.S. Department of Commerce

Chart 2

Major Trade Laws and Trade Positions By U.S. Administrations

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1960-1969

- Trade Expansion Act of 1962 granted authority for Kennedy Round of the General Agreement on Tariffs and Trade (GATT) negotiations
- Kennedy Round provided sweeping changes including multilateral, across-the-board tariff cuts.
- Exception of textiles from GATT to obtain passage of the Trade Act
- Trade Adjustment Assistance added to Safeguard Provisions
- Considered as the high water of post-war trade liberalization

1970-79

- Trade Act of 1974 granted authority for Tokyo Round of Negotiations
- Trade Agreement Act of 1979
- Extended import quotas on cotton textiles to cover wool and synthetics
- Placed numerous restraints on the President's liberalization efforts (Yarbrough and Yarbrough, 1994)
- Rules were made to provide for stronger enforcement against unfair trading practices
- Carter administration accommodated trade pressures with "moderate trade-restraining arrangements" (Destler, 1992). Strauss negotiated orderly marketing agreements with Japan to limit export of color television sets to the U.S.

1980-1989

- Trade and Tariff Act of 1984 characterized as "Anti-Trade" by the Washington Post (September 1984)
- Omnibus and Trade Competitiveness Act of 1988(Uruguay Round)
- Reagan endorsed liberal trade in principle but protectionist in practice (Destler, 1992)
- Initiated the 1981 voluntary export restraints on cars and the 1982 export restraints on steel
- Toughened U.S. quotas on textile imports
- Trade Act of 1988 increased the scope of protectionist threats in the form specially of the so-called Super 301.
- Japan and India listed as countries practicing unfair trade practices under Super 301
- U.S. Senate passed resolution condemning the bilateral trade imbalance with Japan (1985)
- U.S. Senate called upon the president to retaliate against unfair Japan trade
- USTR, initiated for the first time Section 301 investigations without any petitioner
- Reagan imposed 100% punitive tariffs on Japanese electronics, the first against Japan since WWII
- Market Oriented Sector Specific (MOSS) negotiations with Japan sought concessions in 4 broad product areas rather than specific products (1985)
- Reagan granted more relief than any predecessor in more than half a century

1990-95

- Gephardt amendment to Super 301 targeted against Japan
  - Trade conflicts with Japan increased
  - NAFTA passed in 1993
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